# TREES MAGAZINE

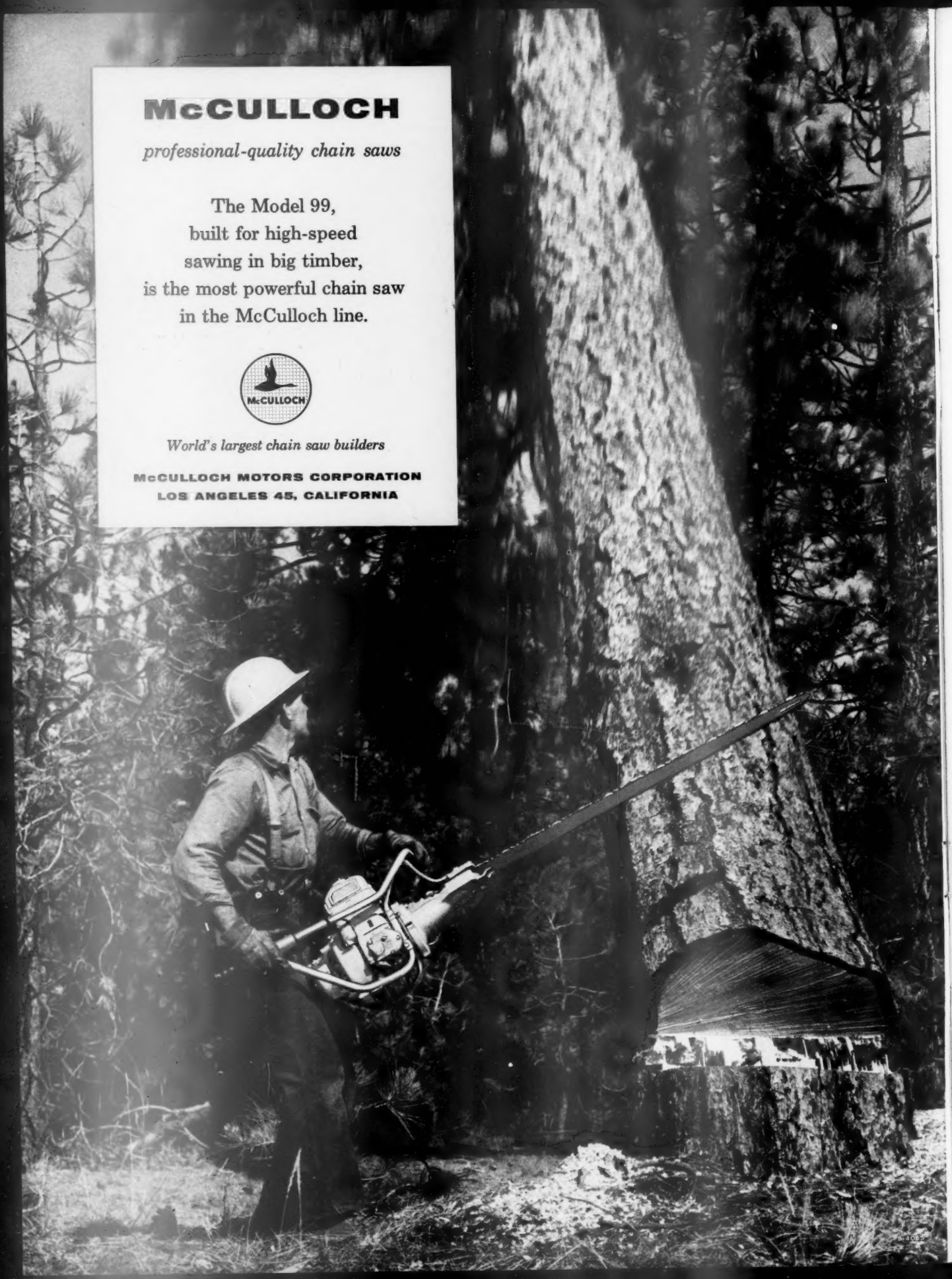
*One of the Finest of Ornamental Trees, the Silver Pendant Linden — Tilia Petiolaris*

**Recommended Street and Ornamental Trees, by Shade Tree Selection Committee, N.S.T.C.**

***Leaf Analysis to Determine Fertilizer Needs*** **A. L. Kenworthy**

***Needle Blight of Eastern White Pine*** **Malcolm A. McKenzie**

March-April 1955 *The Journal of American Arboriculture* Vol. 15. No. 3


McCULLOCH
professional-quality chain saws
The Model 99,
built for high-speed
sawing in big timber,
is the most powerful chain saw
in the McCulloch line.
McCULLOCH
World's largest chain saw builders
McCULLOCH MOTORS CORPORATION
LOS ANGELES 45, CALIFORNIA

# ALONG THE WAY With .... EDW. SCANLON

■ GUESS WHO this Conn. license plate BELONGS TO — no one else but the "GREEN ELEPHANT" man HAROLD PERKINS. PERK really COINED A PHRASE at the FIRST STREET TREE AND UTILITY CONFERENCE last month, when in his MASTERFUL SUMMATION of the meeting, he referred to OUT-OF-SCALE FOREST GIANTS as "GREEN ELEPHANTS." This is the MOST DESCRIPTIVE phrase we have heard to describe SILVER MAPLES, American elms and other BIG TROUBLE MAKING STREET TREES.

■ **One of the ENTHUSIASTS who attended the FIRST STREET TREE AND UTILITY CONFERENCE wondered why THIS TYPE OF MEETING hadn't been held 15 YEARS AGO. The SECOND WILL BE HELD in March of 1957—this is tentative at the moment.**

■ WHAT A LULU of a wind and snow storm we had at the OLD RANCHO March 26 and 27. LOST ONE of the BLACK LOCUSTS on the SOUTH SIDE of the house—we're going to MISS THAT FREE AIR-CONDITIONING UNIT—but are hopeful that the BEAUTIFUL 10/12' FRUITLESS MULBERRY will take up the slack in a few years—THEY GROW LIKE WILD and are REALLY HANDSOME TREES — to about 25'.

■ **Saw an INTERESTING THING in CINCINNATI the other day (March 30). On the way in FROM THE AIRPORT, which is on the KENTUCKY SIDE of the Ohio River, I noticed a HALF DOZEN BALD CYPRESS (TAXODIUM DISTICHUM) growing in pond and they had the CHARACTERISTIC "KNEES" of the PATRIARCHS OF THE LOUISIANA BAYOUS. First time I had EVER SEEN OR KNEW THEY GREW this far north and in THIS MANNER.**

■ FRANK KARPICK reports on a BALD CYPRESS growing in the MUNICIPAL ROCK GARDEN in HAMILTON, ONTARIO—employees told him it was SUPPOSED TO BE the FARTHEST NORTH this tree is known to grow. HOW ABOUT IT?

■ **The NEW YORK STATE ARBORISTS ASSOCIATION seems to be a SLAM BANG OUTFIT for doing things. Now they have presented a TREE PROTECTION BILL (Senate #1783) (Assembly #2128) and DEWEY WADE tells us it LOOKS FAVORABLE. It can be done WITH PUSH, and of COURSE "PULL," but these guys can MUSTER BOTH—all of you NEW YORKERS have a chance to put the PRESSURE ON YOUR SERVANTS at Albany—you'll be HAPPY YOU DID in five years or so.**

■ ANOTHER ACTIVITY of the NYSAA as reported by FRANK LARMORE is the issuance of a 3 COLOR BUMPER STRIP—white, green and fluorescent cherry. Its an ATTRACTIVE THING—should be followed through IN OTHER STATES (see cut). The bumper strips costs $10.00 PER 100 and can be obtained from FRANK AT 1021 HIGH BRIDGE RD., SCHENECTADY.

■ **HAVE A DATE April 8 to show SOME SLIDES to SOUTHEASTERN ELECTRIC EXCHANGE conference in NEW ORLEANS — why COULDN'T THIS HAVE come about a MONTH AGO when it was REALLY COLD UP HERE —or maybe IT WAS THERE ALSO.**

■ H. B. CHASE (CHASE NURSERY) has sent an interesting clipping about the LARGEST PECAN IN ALABAMA —that is, IT USED TO BE until a brisk March breeze knocked it galley west. ALSO H. B. thinks it was the LARGEST IN THE U. S.—125 years old; 115' high (headed back several years ago); 7' DBH—CAN ANYONE come up with a LARGER ONE.

■ **LEE BARTLETT is back with BILL HALL (ARBOREAL ASSOCIATES). LEE has been out of the tree business since before WW2, but returned TO THE FOLD and is handling the NORTHERN N. JERSEY area. WELCOME HOME.**

■ NEW YORK is going to be TREE LAW HAPPY if the present trend of law introductions continues. JOHN COYNE, CITY ARBORIST OF YONKERS sends copies of Assembly Bill #3233 "to amend the local finance law, in relation to the financing of a program for rehabilitation and replacement of trees"—OTHER INDUSTRIES GO TO WORK on their REPRESENTATIVES in such matters—TREE MEN SHOULD ALSO ASSERT themselves and GET THESE BILLS ENACTED. This would permit MUNICIPALITIES TO FINANCE by bond issues COMPREHENSIVE TREE PROGRAMS.

■ **I have JUST RE-READ DICK WALTERS remarks in the SHADE TREE for FEB. '54 about the wisdom of USING CERTAIN SMALL "TAILORED TREES" on streets—I'm going TO ANSWER THAT BOY, don't know when I'll get around to it—but the NUB OF THE REBUTTAL will be shocking.**

## CONTENTS

Vol. 15 Bi-Monthly No. 3

**Subscription Price $2.00 Per Year**
**(Foreign $2.50) 35 Cents Per Copy**
**TREES MAGAZINE**
**7621 Lewis Rd., Olmsted Falls, Ohio**

*The Editors of TREES invite discussions, comments and all types of literary materials pertaining to trees and tree preservation from any person engaged either in the scientific advancement or commercial development of the field.*

CONTENTS

Editorial . . . . . 4
April Is The Month Of The Trees

First Street Tree and Utility Conference Acclaimed . . . . . 6

Leaf Analysis to Determine Fertilizer Needs Of Trees and Shrubs . . 8
*by A. L. Kenworthy*

Santa Barbara's Trees Tell Their Stories . . . . . 9
*by Margaret Mellinger Griffin*

Recommended Street and Ornamental Trees . . . . . 10
*by Shade Tree Selection Committee*

Needle Blight of Eastern White Pine 12
*by Malcolm A. McKenzie*

Southern Shade Tree Conference . 12

Dogwood is Forest Pest . . . . . 13

New Grandiflora Class of Roses . . 14
*by W. E. Lammerts*

Chestnut Blight . . . . . 16

New Zealanders Claim Monterey Pine . . . . . 19

### The Cover Picture:

The weeping silver linden, or Silver Pendant Linden, *Tilia petiolaris,* that adorns our cover is the finest specimen of this entirely too rare tree that we have had the pleasure of seeing. This specimen is in Ottawa Park at Toledo, Ohio, and was pointed out to us by Joe Sweeney, City Forester. *Petiolaris* does not come from seed, or so we understand, but must be budded or grafted. This specimen, quite old, is only between 35' and 40' tall, with a spread of about 30'. The pendulous branch tips and silvery under part of the leaf make it an ornamental without peer. It should be widely used in parks and other large areas, and where there is sufficient space it could be used on streets. Do not attempt to use it where there is atmospheric pollution, the silver part of the leaf is hairy and will collect soot and other pollution.

TREES Magazine is a bi-monthly Journal published at Olmsted Falls, Ohio, by Edward H. Scanlon, and is devoted to the furtherance of the technical and business administration of Trees (Street and Ornamental); Parks (Municipal and National); and Forests (State, National and Private), in the U. S. Scanlon Publishing Co., 7621 Lewis Rd., Olmsted Falls, Ohio. Subscription by mail $2 per year; outside United States, $2.50. Advertising rates upon inquiry. Closing date for advertising copy—10th of month preceding date of issue. Unsolicited manuscripts must be accompanied by return postage.

March-April 1955 **Journal of the National Arborist Association** Vol. 15 No. 3

EDWARD H. SCANLON, Editor
7621 Lewis Rd., Olmsted Falls, Ohio
ADams 5-2357

"No place is complete without trees. A home without trees is charmless; a road without trees is shadeless; a park without trees is purposeless; A COUNTRY WITHOUT TREES IS HOPELESS."

ADVISORY COUNCIL

L. C. CHADWICK
*Professor of Horticulture*
*Ohio State University, Columbus, O.*

H. DANA BOWERS
*State Landscape Engineer*
*Division of Highways*
*Sacramento, Calif.*

MAUNSELL VAN RENSSELAER
*Director, Saratoga Horticultural Foundation*
*Saratoga, Calif.*

NOEL B. WYSONG
*Forester, Cook County Forest Preserve, River Forest, Ill.*

PAUL E. TILFORD
*National Arborist Association*
*Wooster, Ohio*

FORREST C. STRONG
*Assistant Professor of Botany*
*Michigan State College*
*East Lansing, Mich.*

CHARLES F. IRISH
*Arborist, Cleveland, Ohio*

P. P. PIRONE
*New York Botanical Garden*
*New York, N. Y.*

RALPH D. CORNELL
*Landscape Architect, Los Angeles, Calif.*

CURTIS MAY
*Principal Pathologist, Bureau of Plant Industry Station, United States Department of Agriculture, Beltsville, Maryland.*

KARL DRESSEL
*Assoc. Prof. Forestry, Michigan State College*
*East Lansing, Mich.*

MALCOLM A. McKENZIE
*Director, Shade Tree Laboratories*
*University of Massachusetts*
*Amherst, Mass.*

EMANUEL FRITZ
*Associate Professor of Forestry*
*University of California, Berkeley, Calif.*

# Out On A Limb

## APRIL IS THE MONTH OF THE TREES

It can probably be said without too much fear of contradiction that there are more trees planted in the month of April than in any other month of the year. April therefore, is logically the month in which Arbor Day falls. And, in at least eleven of our great states Arbor Day has legally been designated as the "Last Friday In April." If this same unity of purpose could be achieved in at least a dozen more states, all of which lie within the climatic zone that would make the physical action of tree planting feasible in this month, or on the "Last Friday in April," then there would be made possible a vehicle whereby great amounts of national publicity could be induced from radio and TV stations and probably from national magazines. We just don't see how this could miss, and the publicity that would be accorded would give the greatest impetus to tree appreciation and intelligent use since Eve discovered the genus Malus. There have been some weak shortsighted objections in some states to the idea of the "Last Friday In April," because it is said that the weather is too far advanced for tree planting. Who cares! If a tree were never planted on this particular day, but if people and children were smothered under a barrage of TV and radio stories and appeals on the values and beauty of trees, wouldn't that tend to make more people ten times more conscious of trees, and wouldn't it eventually result in the planting and use of tens of thousands of more trees than the present ineffectual and sing songy observations induce. We think it would.

The eleven states that have legalized the "Last Friday In April" as Arbor Day are: Maine, Massachusetts, Connecticut, Rhode Island, New Jersey, Ohio, Indiana, Illinois, Wisconsin, South Dakota and Nevada. There are eighteen other states that could conceivably come into this group and make it a formidable reason why Arbor Day appeals would be "good copy" for big national TV and radio shows. You don't think for a minute that all of the big shows would give St. Patrick's day skits if the day were observed on a different date in each state, do you?

The states that should join the original eleven are: Pennsylvania, Michigan, New York, Delaware, Maryland, West Virginia, Virginia, Kentucky, Iowa, Kansas, Missouri, Nebraska, Wyoming, Idaho (a Bill is in the hopper here), Utah, Colorado, Washington and Oregon. It would be a wonderful thing—we hope some progressive souls will pick up the ball and run with it.

## "The Blinding Tree of India"

Madison, Wis.—Paper experts at the U. S. Forest Products Laboratory here are literally "handling with gloves" a shipment of wood sent air express from Pakistan for tests of its suitability for papermaking.

The reason for the gloves:

The wood comes from the "blinding tree of India." Handled by the unwary, it can cause severe skin blisters and eye irritations. A milky white substance in the bark similar to the latex obtained from rubber trees is responsible. Its effects are much like those of the common poison ivy.

Native Pakistanian and Indian woodcutters have long been accustomed to handling the tree and its logs with gloves. Once the bark is completely off and the wood seasoned, however, danger of irritation is past. The wood is used

*Dr. B. Francis Kukachka, wood identification expert, examined a bolt of geva wood from Pakistan, shipped to the U. S. Forest Products Laboratory here for tests of its suitability for papermaking. The bark of the tree, relative of the rubber tree, gives off a milky latex that blisters the skin and irritates the eyes, much like poison ivy.*

for construction, furniture, toys, and shipping boxes in the Orient.

The Pakistan Industrial Development Corp. sent 800 pounds of the wood to the Laboratory here—at a cost of $1,400 in air freight charges. Each bolt was carefully wrapped in burlap to prevent infection of handlers.

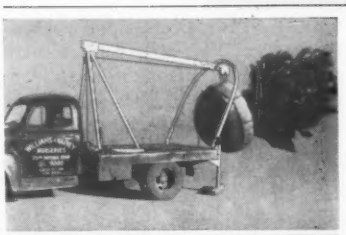
To natives of its growth area the tree is known as geva or gangwa. Botanists call it *Excoecaria agallocha* Linn. It is a member of the same family, Euphorbiaceae, to which the rubber tree, *Hevea brasiliensis*, also belongs. Some 75 species of the genus *Excoecaria* are distributed throughout the tropics of both western and eastern hemispheres, according to Dr. Jeannette Kryn of the Laboratory staff.

# Prof. Metcalf Honored On Coast

*Professor Woodbridge Metcalf was honored in this California Arbor Day Planting on March 5. An Incense Cedar (Libocedrus decurrens) planted on the Davis Campus of the University of California, was supplied by George Hood, Palo Alto City Arborist. L. to R.: George Hood; Professor Metcalf; Professor Pierre Miller, U. C. L. A. and Vice President, National Shade Tree Conference; Maunsell Van Rensselaer, Director Saratoga Horticultural Foundation and President Western Shade Tree Conference.*

## TREE SALESMEN

*Mrs. Temperance Guptill and Les Hebert sell Magazines (TREES) and Memberships (N. S. T. C.) at recent Mass. Tree Wardens and Foresters Association meeting in Boston. Geo. Vaupel (N. J. Bell) and an unknown customer look ready to sign up.*



**Williams & Harvey Nurseries Announce**

## NEW TREE MOVER

- New Light Weight
- Simpler to Operate
- Two Sizes, 6′ and 7′
- Quickly Demountable
- New Lower Costs

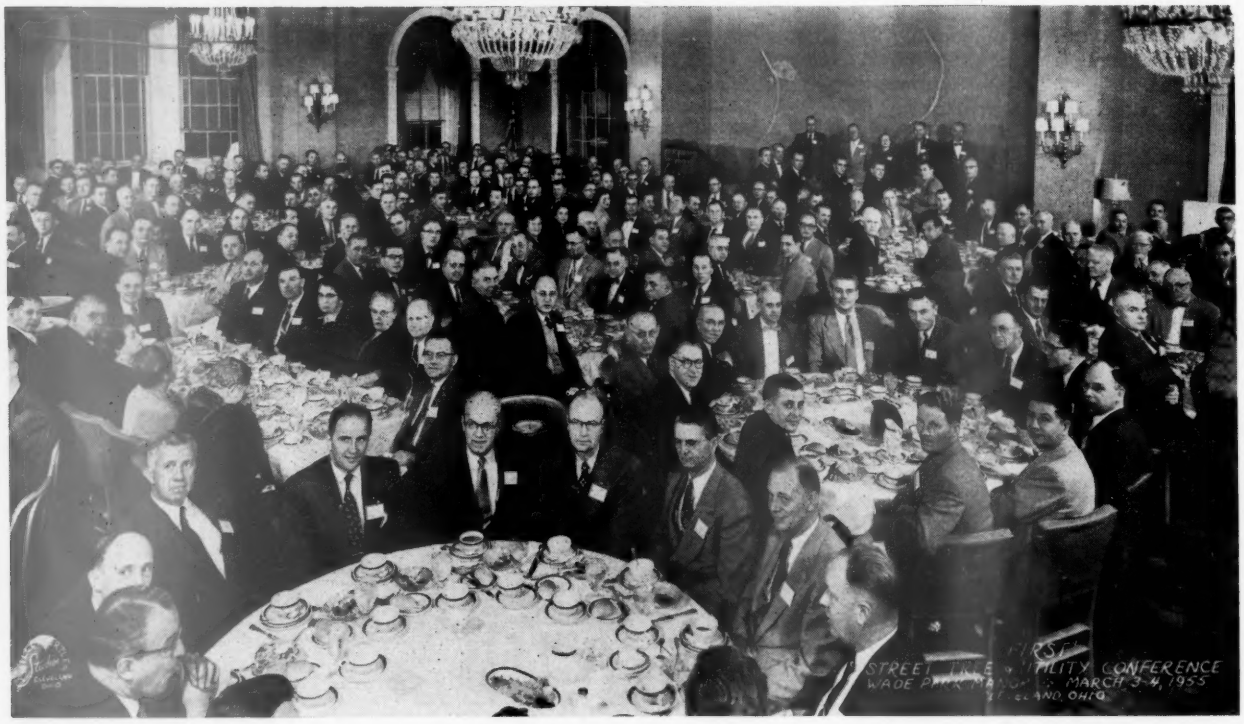
This improved new tree mover fits any standard truck. Ready now. Write us for specifications. Six-feet mover as pictured: complete with power winch and all needed pick-up parts: F.O.B. Kansas City, Mo. **$1575**

**WILLIAMS & HARVEY NURSERIES**

P. O. Box 8822 Kansas City, Mo.


**PLANT AMERICA—WISELY**

# First Street Tree and Utility Conference Acclaimed Success By 300




*The ballroom of the Wade Park Manor was bulging on the occasion of the banquet session held at the First Street Tree & Utility Conference in Cleveland March 3-4.*

Unquestionably the first planned get-together of the age old feudists, tree people, street light people and overhead wire people, proved one thing conclusively to all concerned—all are people and pretty good ones. The First Street Tree and Utility Conference held in Cleveland, March 3rd and 4th attracted a capacity throng that taxed the facilities of the Wade Park Manor. 296 City Foresters, Transmission and Distribution executives and Street Lighting engineers engaged in a two-day meeting that will live long in the memory of all who attended.

In the past discord had reigned in the field of public service or city planning in which three people were trying to live in one room. The needs and convenience of one another had never been considered with the result that misunderstandings and suspicion dominated the actions and activities of all. It finally began to dawn on the leaders in each field that there might be a common ground on which they could meet—there was. It was correlation of effort. With three national organizations pooling their thoughts and interests for the common good, a new healthy climate was created in which there exists no doubt but that from now on tolerance and respect will result in harmony and efficiency in future contacts.

This first conference was sponsored by the Street Lighting Committee of the Illuminating Engineering Society, Kirk M. Reid of the General Electric Co., chairman; the Transmission and Distribution Committee of the Edison Electric Institute, John W. Anderson of the Philadelphia Electric Co., chairman, and the Shade Tree Selection Committee of the National Shade Tree Conference, Edward H. Scanlon, Editor of TREES Magazine, chairman. The conference was about eighteen months in the planning stage and the well balanced, nicely integrated program of nationally known speakers, who all cooperated to the utmost of their abilities, was a tribute to each of the organizations involved.

The proceedings of the meeting will be avaliable as soon as the laborious task of editing the two hundred pages of transcript can be edited and briefed and the papers sent to the speakers for their final editing. It is hoped that this work can be completed by the first of July, although this may be an ambitious date to set. Copies will sell for $7.00.

The meeting was called to order by John W. Anderson who briefly outlined the hopes and aspirations of the co-sponsors. He in turn introduced Mr. Harry T. Sealy, Vice President of the Cleveland Electric Illuminating Co. who in turn presented the distinguished former Mayor of Cleveland and former United States Senator Thomas A. Burke. Senator Burke told of his interest in the problems before the conference that he faced as Mayor when street lighting and street trees became major problems that had to be resolved by cooperative action and the application of scientific principles of use. His address was highlighted by many interesting anecdotes in his long service as Mayor and United States Senator.

At the conclusion of the meeting Mr. Kirk Reid who was serving as chairman asked what the feeling of the group was with respect to the holding of another conference. The enthusiasm with which the meeting had seemed to engender among all participants unconsciously seemed to demand that this wonderful beginning must not be al-

lowed to die. At the request of Chairman Reid for a show of hands for a meeting to be held two years hence it appeared that about 99% of the assemblage so indicated. This dictate is now under consideration.

The summarizer of the meeting Professor Harold O. Perkins of the University of Connecticut who performed such a masterful job in this difficult assignment and whose report will be available in the printed proceedings has finished this report with a resume of the papers given by the various speakers. Professor Perkins outline follows:—

There was a general recognition of the over-all picture by the twenty speakers as they presented papers that were basically concerned with their own specialized field. Each speaker of the two-day program had had experience with the broad problem of trees and utility wires or pipes. There was a general feeling of optimism that through cooperative effort mutual problems could be licked.

E. V. Sayles (Consumers Power Co., Jackson, Michigan) in his talk "Power Line Design for Compatibility with Trees" stated that there is no uncertainty of the fact that we have a common problem. That problem is how best to serve the public. It is the public's property that we occupy when we plant our trees, install our street lights, and build our lines. Mr. Sayles pointed out that during the installation of service facilities, conflicts often develop. After all, residences are located along streets and highways and there are well established boundaries between the travel way and the property line. This strip must be used for sidewalks, water and gas mains, trees, and pole and wire lines to carry street lights, power and telephone circuits. The joint occupancy of this strip is the problem which we all must face and this is the problem we must solve. This is the problem we have tried to solve for a great many years. The fact that we have not reached the most satisfactory and economic solution is the reason why we are here at this conference.

"A New Look for Our Streets of the Future" was discussed by Joseph Dietrich (Supt. of Parks, Greenwich, Connecticut). He pointed out that a new pattern of aesthetic and practical ornamentation of streets and highways is in store for many of the cities and towns throughout these United States in the not too distant future. Street trees, familiar to our ancestors and planted by them in many instances, will slowly disappear from their prominent places along the curbs and sidewalks areas and be replaced by trees with a "new look." Mr. Dietrich stated that progress in our civilized world has changed not only the pattern of our every day living but also the standards of natural beauty and aesthetic appreciation. He outlined a method of correcting future disturbances such as these caused by ice storms and hurricanes as follows: (1) The establishment of ordinances in all towns and cities covering the appointment of a tree warden or forester; (2) A program for the elimination from the streets and highways in all towns and cities of such trees as are in a weakened condition or dead from disease or other reasons (3) New tree plantings to be set out, as part of the over-all program, with emphasis on selection of trees as recommended by the Shade Tree Selection Committee of the National Shade Tree Conference.

*Co-chairmen and honored guest. Former United States Senator Thomas A. Burke (second from left) who made the opening address at the historic First Street Tree & Utility Conference in Cleveland. With Senator Burke are the Co-chairmen of the Conference—L. to R. Edward H. Scanlon, National Shade Tree Conference; Senator Burke; John W. Anderson, Edison Electric Institute, and Kirk M. Reid, Illuminating Engineering Society.*

Howard W. Bassett (Street Lighting, Brookline, Massachusetts) spoke on "A Solution of the Forestation Problem in Connection with Street Lighting." He declared that the necessity of removing diseased elm trees, at an average cost of $200.00 each, sidewalk and street paving included, and the removal of uprooted and heavily damaged trees caused by four hurricanes since 1938 have caused the Tree Planting Committee not only to enlarge on the use of controlled height trees, but to sponsor legislation to plant trees on private property and maintain them, thus keeping the trees farther away from all utility lines. Mr. Bassett stated that in installing a new street lighting system on heavily planted streets the utility company agreed to accept as standard twelve and sixteen-foot brackets so that the street light would be over, or nearly over, the center of the street. It was explained that the type of luminaire which was used brought the light down to the street surface at a 75° angle and necessitated little pruning in comparison to the old 90° angle type.

David A. Toenjes (General Electric Company, Cleveland) commented on "Fitting a Roadway Lighting Plan to Buildings, Trees, and Grounds." He said that the installation of new luminaires on 25-foot poles at the evenly-spaced locations suggested by the preliminary layout would have offered some serious conflicts with the trees. After tree locations were carefully taken into account in determining the final pole positions, interference with the lighting was greatly reduced. It was necessary to prune only minor limbs and branches. One thing is especially to be noted—the inspection of the lighting must be made after dark to decide what pruning is needed.

"Design of Street Lighting Standards and Permissable Departures" was jointly presented by Warren H. Edman (Holophane Company, Newark, Ohio) and Henry W. Osborne (City of Buffalo). They pointed out that even with high-mounted luminaires it is not necessary to prune all trees to the height of the luminaire. It is necessary to prune only those branches which fall below the cone of maximum candlepower. Foliage midway between luminaires and somewhat below lamp level helps to screen distant sources of light; the attendant reduction in glare helps visibility and comfort of motorists and pedestrians. In order to minimize conflicts with trees

*(Continued on Page 20)*

# LEAF ANALYSIS TO DETERMINE FERTILIZER NEEDS OF TREES AND SHRUBS

A. L. KENWORTHY
*Department of Horticulture*
*Michigan State College*

Who can enjoy trees along the road or street when the leaves are yellow or partly dead during the summer? Here in Michigan roadside trees frequently have a chlorotic or necrotic appearance on the side nearest the highway. The calcium contained in the salt used to melt ice and snow may be causing a deficiency of potassium, magnesium, or some minor nutrient.

Fertilizer needs of trees and other woody perennials have been supplied largely by guess work, rule of thumb, and/or experience. Frequently, however, problems arise for which there has been no previous experience to serve as a guide in the determination of a nutritional disorder. It is here that leaf analysis is useful. A valuable tree may be failing without any apparent reason. Whether this is caused by a "hidden" or a "critical" deficiency of one or more nutrients, leaf analysis can be a great help.

Many ornamental trees and shrubs are planted in soil that has been used as fill, soil that is contaminated with residues of stone and brick work, compacted with heavy machinery, and limited in available soil moisture. Previously fertilizer applications have been largely confined to nitrogen, phosphorus, and potassium. In these artificial soils and other elements, calcium, magnesium, manganese, iron, copper, boron, and zinc are more likely to be deficient than in natural soil formations.

Testing the soil for nutrients has been used with only limited success, because of the lack of coverage of the essential nutrients and the difficulty in obtaining a soil sample representative of the soil mass invaded by the roots. If soil tests are limited to pH (soil acidity), phosphorus, and potassium, there is still no information about the other elements. The collection of a soil sample representative of an adequate mass of soil for large trees would involve considerable time and labor. To overcome these difficulties leaf analysis has been introduced as a diagnostic tool. Soil testing may tell what nutrients are in the soil for the trees to use. Analyzing the leaves for various nutrients will tell what the tree is actually obtaining from that soil.

Spectrographic Leaf Analysis

Recent developments in the use of the

*(Continutd on Page 18)*

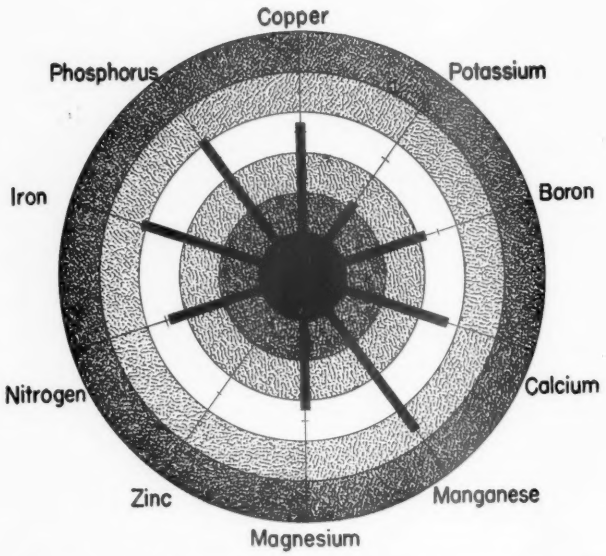



***Figure 1.** A Nutrient-element Balance Chart showing the analysis of a leaf sample found to be deficient in potassium. The trees were believed to have magnesium deficiency. (White band —normal, light shaded bands—hidden deficiency or approaching excess, heavy shaded bands—deficiency or excess.)*

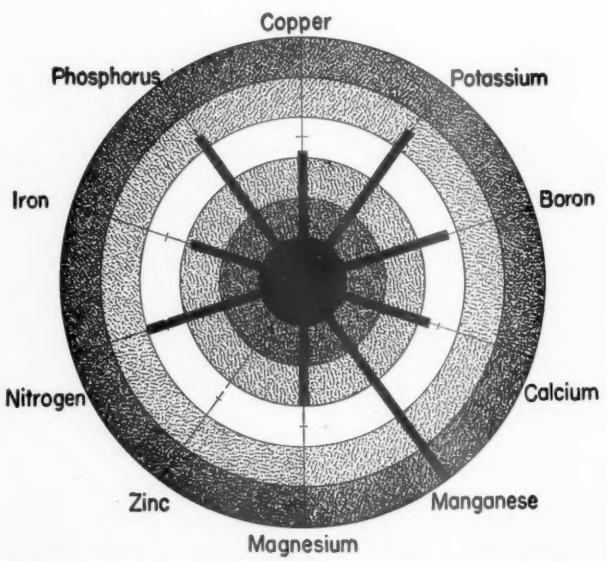



***Figure 2.** A Nutrient-element Balance Chart showing apple trees to have manganese toxicity rather than boron deficiency as believed.*

# Santa Barbara's Trees Tell Their Stories

By Margaret Mellinger Griffin
*Griffin & Morgan Company*
*Santa Barbara, California*

Trees in general, shade trees in particular, are the main reason why so many people from the United States and Canada will flock to Santa Barbara next August. And awaiting these visitors are some interesting specimen, which if empowered with the ability to talk, could relate some mighty fine tales about their lives in this seacoast city of California.

Dr. F. Franceschi in 1895 edited a handbook entitled, "Santa Barbara Exotic Flora: a handbook of Plants from Foreign Countries grown at Santa Barbara, California." He states that above "other cities in Southern California, Santa Barbara is acknowledged to enjoy the privilege of having had from the earliest date, the largest number of settlers impressed with intense love for plants and for flowers, and to possess in her gardens the most remarkable and older specimens of trees from foreign countries."

In 1955 some of these trees remain standing, new ones have replaced their 19th century friends and in their European way stand side by side with trees native to the western coast of North America. If their stories could be conveyed to our listening ears the arborous old-timers would possibly be saying:

1) "Santa Barbara's Moreton Bay Fig is my popular title, although I am also known as the Rubber Tree, or more specifically as Ficus macrophylla. If you arrive in Santa Barbara by train I shall be greeting you from the corner of Chapala and Montecito Streets, near the station. It was here that I was planted in 1877 and have grown into one of the largest of my kind in the country.
Figs belong to Moraceae, the Mulberry Family. Maunsell Van Rensselaer, in his book, "Trees of Santa Barbara," describes us as "trees, shrubs and vines with milky juice, which bear fruits similar in structure to the common fig. The stem is ringed just above the base of each leaf. The many species, native to warm regions throughout the world, are extremely variable in appearance."
"My leaves are dark and glossy green. Native to Australia, my kind is often cultivated as a specimen tree. I'm not stretching my branches when I say I am one of the most noted trees in Santa Barbara," (Note: see accompanying chart).

*Santa Barbara's famous Moreton Bay Fig (Ficus macrophylla). You will see this giant as you leave the train in Santa Barbara.*

*Root system of the Big Fig. Wouldn't this make a beautiful mess out of a 10-ft. treelawn.*

Growth and Development of the Santa Barbara Moreton Bay Fig

| | 1935 | 1939 | 1947 | 1955 |
|---|---|---|---|---|
| Branch spread | 124 ft. | 135 ft. | 144 ft. | 149 ft. |
| Circumference, end of branches | | | | 440 ft. |
| Circumference, trunk 5′ above ground | | | | 28.8 ft. |
| Area of branch spread | | 12,712 sq. ft. | | 14,505 sq. ft. |
| Estimated number of people able to stand under noon shadow cast by branches | | 9,500 | | 10,450 |

2) "On the corner of Milpas and Quinientos Streets I, the Sailors' Sycamore stand. To the scientifically minded I am better known as Platanus racemosa or Western Sycamore. I have an irregular trunk whose bark breaks off in small pieces, showing white patches. Only for a short time each winter do I have no leaves. Trees like I am grow easily near creeks and in damp gullys. In Santa Barbara we are not often planted as street trees although the California Association of Park Administrators did recommend us as one of a selected list of 65 trees suitable for parkway planting in southwestern United States.
Santa Barbarans of 1800 hung a lantern in my highest branches as a beacon for incoming ships at night. Sea captains used me as a landmark when planning to anchor at Santa Barbara. By 1946 my upper branches had become

*(Continued on Page 23)*

# Recommended Street and Ornamental Trees

The following list was presented at the First Street Tree and Utility Conference in Cleveland, March 3 - 4, 1955. Obviously all sections of the country are not covered, but there are many worthwhile species that will be found of great value in sections other than zones indicated after each tree. It is hoped that further lists will soon be ready on West Coast, Southwest and several other geographic sections. Some of these trees may later be deleted and others added, but these are presented for further use and development. All have been observed and, or used, and have been chosen because of their growth and behavior under site conditions not necessarily considered favorable. They are all good and handsome trees.

*Compiled by the Shade Tree Selection Committee of the National Shade Tree Conference*

**Edward H. Scanlon, *Chairman,***

**Dr. Henry T. Skinner - Maunsell Van Rensselaer - J. Gerling**
**Dr. Harold O. Perkins - Harry E. Turner**

It should not be presumed that the possession of a list of trees, no matter how well catalogued, is the solution to our many present day problems. The manner in which ornamental trees are used is coming in for renewed study so that in the next few years changes in tree evaluation can be expected.

There are so many factors that influence the behavior of a tree that it would be impossible to tabulate and anticipate them all. It is sincerely hoped, by the Committee, that the list presented herewith will be evaluated and used only after careful study of site factors, variations of climate, rainfall and soil, and for which proper compensation will be made.

There will be some duplications in this list, e. g., "Sorbus alnifolia" is listed as a "Small Conventional Tree", also because of its magnificent fall color, as "Fall Color Foliage". Where such a duplication arises the tree will be catalogued in cross references as "Sorbus alnifolia (5) (SC) (FC)". The numeral following each name indicates its hardiness zone as designated in Rehders "Manual of Cultivated Trees and Shrubs".

Dimensions are based on the 40-year life cycle generally accepted for street trees.

## SMALL CONVENTIONAL TREES (SC)

Acer buergerianum (5) — *Trident Maple*
" Davidii (5) — *David's Striped Bark Maple*
" cappadocicum (5) — *Coliseum Maple*
" cissifolium (5) (FC) — *Mitsudekaede Maple*
" campestre (4) — *English Hedge Maple*
" truncatum (5) (FC) — *Purple-blow Maple*
" monspessulanum (5) — *Montpelier Maple*
" Miyabei (5) — *Miyabe Maple*
" griseum (4) (FC) — *Cherrybark Maple*
" capillipes (5) — *Japanese Striped-bark Maple*
" carpinifolium (5) — *Hornbeam Maple*
" ginnala (2) — *Amur Maple*
" circinatum (5) (FC) — *Vine Maple*
" leucoderme (5) (FC) — *Chalk Maple*

Cornusflorida (5) (FT) — *White Flowering Dogwood*
" " rubrum (5) (FT) — *Red Dogwood*
" Kousa chinensis (5) (FT) — *Chinese Dogwood*

Ostrya virginiana (4) — *American Hop Hornbeam*
Fraxinus ornus (5) — *Flowering Ash*
Sorbus alnifolia (4) (FC) — *Korean Mountainash*
" aucuparia (2) — *European Mountainash*
Parrotia persica (5) (FC) — *Persian Parrotia*
Carpinus betulus (4) — *European Hornbeam*
Tilia cordata (3) — *Littleleaf Linden*
" euchlora (5) — *Crimean Linden*
Acer platanoides "Cleveland" (3) (U) — *"Cleveland" Norway Maple*
Amelanchier laevis (4) (FT) — *Allegany Service Berry*
Koelreuteria paniculata (5) (FT) — *Panicled Goldenrain*
Maackia amurense (4) (FT) — *Amur Maackia*
Phellodendron amurense (4) (FT) — *Amur Corktree*
Evodia hupehensis (5) (FT) — *Korean Evodia*
Fagus sylvatica tricolor (4) (CF) — *Tricolor Beech*
Ilex opaca (5) (FT) — *American Holly*

• • •

## FALL COLOR FOLIAGE (FC)

Liquidambar styraciflua (4) (LT) Deep Crimson — *Sweetgum*
Nyssa sylvatica (4) (LT) Bright Crimson — *Sourgum*
Acer rubrum (3) (LT) Bright Scarlet and Yellow — *Red Maple*
Acer saccharum (3) (LT) Orange, Scarlet or Yellow — *Sugar Maple*
Sorbus alnifolia (4) (SC) (FT) Orange and Scarlet — *Korean Mountainash*
Oxydendrum arboreum (5) (FT) (SC) Scarlet — *Sourwood*
Acer griseum (4) (SC) Bright Red — *Cherrybark or Paperbark Maple*
" buergerianum (5) Flaming Red — *Trident Maple*
Quercus imbricaria (4) (MT) Russet Red — *Shingle Oak*
Phellodendron amurense (4) Yellow — *Amur Corktree*
Parrotia persica (5) (SC) Orange and Yellow — *Persian Parrotia*
Acer circinatum (5) (SC) Salmon Shades — *Vine Maple*
Sassafras albidum (4) Salmon and Red — *Sassafras*
Acer cissifolium (5) (SC) Red and Yellow — *Mitsudekaede Maple*
Acer leucoderme (5) (SC) Scarlet — *Chalk Maple*
Crataegus lavallei (4) Deep Plum Colors — *Lavalle Hawthorn*
Crataegus phaenopyrum (4) Salmon and Red — *Washington Hawthorn*
Quercus coccinea (4) (LT) Brilliant Scarlet — *Scarlet Oak*
Quercus shumardi (5) (LT) Red — *Texas Oak*
Sorbus aria lutescens (5) (FT) Yellow — *Yellow-leave Whitebeam Mountainash*
Acer truncatum (5) (SC) Purplish — *Purple Blow Maple*

• • •

## UPRIGHTS (U)

### Fastigiate (F) - Columnar (C) - Pyramidal (P)

Acer platanoides ascendens (3) (P) — *Upright Norway Maple*
" rubrum "Bowhall" (3) (P) — *"Bowhall" Red Maple*
" " "Armstrong" (3) (F) — *"Armstrong" Red Maple*
" saccharum columnare (3) (C) — *Columnar Sugar Maple*
Carpinus betulus fastigiata (3) (P) — *Pyramidal European Hornbeam*
Betula pendula fastigiata (3) (F) — *Fastigiate Eureopean White Birch*
Acer pseudoplatanus erectum (5) (P) — *Pyramidal Sycamore Maple*
Prunus serrulata "Amanagowa" (4) (F) (FT) — *"Milky Way" Japanese Flowering Cherry*
Crataegus monogyna stricta (4) (F) — *Columnar Singleseed Hawthorn*
Fagus sylvatica Dawyck (F) — *Fastigiate European Beech*
Ulums carpinifolia sarniensis (P) — *Wheatley Elm*
Sorbus aria lutescens (P) — *Yellow-leaf Whitebeam Mountainash*
Ulums carpinifolia wredeii (4) (P) (CF) — *Upright Golden Elm*
Tilia Americana pyramidalis (4) (P) — *Pyramidal American Linden or Basswood*
Acer platanoides "Cleveland" (Oval upright) (3) — *"Cleveland" Norway Maple*
Ginkgo biloba "Mayfield" (male) (4) (F) — *"Mayfield" Ginkgo*
Ginkgo biloba "Lakeview" (male) (4) (P) — *"Lakeview" Ginkgo*
Platanus acerifolia pyramidalis (5) (P) — *Pyramidal London Plane*

## SMALL GLOBES (SG)

Acer platanoides globosum (3) — *Globehead Norway Maple*
" saccharum globosum (3) — *Globehead Sugar Maple*
Cragaegus monogyna inermis (4) — *Globehead Singleseed Hawthorn*
Robinia pseudoacacia umbraculifera (3) — *Globe Locust*
Robina hispida globosa (3) — *Flowering Globe Locust*
Acer platanoides "Almira" (3) — *"Almira" Norway Maple*
Tilia platyphyllos globosa (4) — *Globe European Linden*

• • •

## LARGE GLOBES AND ROUNDHEADED (LG)

Acer rubrum "Tilford" (4) — *"Tilford" Red Maple*
Ulmus carpinifolia umbraculifera (4) — *Globehead Smoothleaf Elm*
Acer platanoides "Irish" (4) — *"Irish" Norway Maple*
Ginkgo biloba umbraculifera (4) — *Umbrella Ginkgo*

• • •

## FLOWERING TREES (FT)

Crataegus lavallei (4) (FC) — *Lavalle Hawthorn (White)*
" phaenopyrum (4) (FC) — *Washington Hawthorn (White)*
" oxyacantha Pauli (4) — *Pauls Double Scarlet Flowering Hawthorn (Scarlet)*
" oxyacantha flore plena (4) — *Double White Flowering Hawthorn (White)*
Maacki amurensis (4) (SC) — *Amur Maacki (White)*
Aesculus carnea brioti (3) (MT) — *Ruby Red Horsechestnut (Red)*
Sorbus alnifolia (5) (SC) (FC) — *Korean Mountainash (White)*
" aria lutescens (5) (FC) — *Yellow-leaf Whitebeam Mountainash (White)*
" aucuparia (2) (SC) — *European Mountainash (White)*
Koelreuteria paniculata (5) (SC) — *Panicled Goldenrain (Yellow)*
Aesculus hippocastanum baumanni (3) (LT) — *Baumans Fruitless Horsechestnut (White)*
Oxydendrum arboreum (5) (FC) (SC) — *Sourwood (White)*
Robinia pseudoacacia x hispida —"Idaho" (3) — *"Idaho" Locust (Rose-Pink)*
Pyrus calleryana (5) — *Callery Pear (White)*
Sophora japonica (5) (MT) — *Japenese Pagoda Tree (White)*
Cladrastis lutea (4) — *Yellowwood (White)*
Cornus florida (5) (SC) — *White Flowering Dogwood (White)*
" florida rubra (5) (SC) — *Red Flowering Dogwood (Red)*
" Kousa chinensis (5) (SC) — *Chinese Dogwood (White)*
Ilex opaca (5) (SC) — *American Holly (White)*
Amelanchier laevis (4) — *Allegany Service Berry*
Prunas serrulata sps. (4) — *Japanese Flowering Cherry*
Prunus serrulata "Amanagowa" (U) (Pinkish White)
Prunus serrulata "Kwanzan" (Pink)
Prunus serrulata "Kofugen Zakura" (Rose)
Prunus serrulata "Shirotae" (White)
Prunus serrulata Sargenti (4) (Rose)
Malus sps. (2-4)
Malus japonica (Pink)
Malus "Beauty" (White)
Malus "Lemoine" (Deep Red)
Malus "Kola" (Pink)
Malus "eley" (Red)
Malus "Red Silver" (Maroon)
Malus "Shakespeare" (Pink)
Malus "Dolgo" (White)
Magnolia soulangeana (5) — *Chinese Saucer Magnolia (White)*
Syringa amurensis japonica (4) — *Japenese Lilac (White)*
Evodia hupehensis (5) (SC) — *Korean Evodia (White)*

• • •

## MEDIUM TREES (MT)
### (25′ - 40′)

Sophora japonica (5) (FT) — *Japenese Pagoda*
Aesculus carnea brioti (3) (FT) — *Ruby Red Horsechestnut*
Acer pseudoplatanus spaethi (5) — *Wine-leaved Sycamore Maple*
Quercus imbricaria (4) (FC) — *Shingle Oak*
Acer rubrum (Selection #154) (3) — *Red Maple (Selection #154)*
Alnus cordata (5) — *Italian Alder*
Eucommia ulmoides (5) — *Hardy Rubber Tree*
Celtis sinensis (5) — *Chinese Hackberry*
Zelkova serrata (5) (DED) — *Japanese Keaki*
Ulmus carpinifolia "Buisman" (4) (DED) — *Buisman Elm*
Acer platanoides "Irish" (3) (LG) — *"Irish" Norway Maple*
Tilia petiolaris (4) — *Silver Pendent Linden*
Acer pseudoplatanus (5) — *Sycamore Maple*

• • •

## DUTCH ELM DISEASE RESISTANT (DED)

Ulmus carpinifolia "Buisman" (4) — *"Buisman" Elm*
Zelkova serrata (Ulmacea) (5) — *Japanese Keaki Tree*

• • •

## LARGE TREES (LT)
### (45′ and over)

Quercus coccinea (4) (FC) — *Scarlet Oak*
" shumardi (5) (FC) — *Texas Oak*
" phellos (5) — *Willow Oak*
" borealis (4) — *Red Oak*
" alba (4) — *White Oak*
" palustris (4) — *Pin Oak*
" acutissima (5) — *Sawtooth Oak*
" serrata (5) — *Oriental Oak*
Aesculus hippocastanum baumanni (3) (FT) — *Baumans Fruitless Horsechestnut*
Tilia tomentosa — *Silver Linden*
Acer rubrum (3) (FC) — *Red Maple*
" saccharum (3) (FC) — *Sugar Maple*
Ginkgo biloba "Palo Alto" (male) (4) — *Ginkgo biloba (male selection)*
Liquidambar styraciflua (4) (FC) — *Sweet Gum*
Platanus acerifolia (5) — *London Plane*
Gleditsia triancanthos inermis (4) — *Thornless Honey Locust*
Fagus sylvatica (4) — *European Beech*
" " rohanni (4) — *Red Fernleaf Beech*
" " asplenifolia (4) — *Fernleaf Beech*
" " spaethi (4) — *Spaethi Redleaf Beech*
Nyssa sylvatica (4) (FC) — *Sour Gum*
Salix elegantissima (4) — *Thurlows Weeping Willow*

• • •

## COLORED FOLIAGE (CF)

Liquidambar styraciflua aurea (4) — *Golden Sweet Gum*
Acer platanoides "Faassens Black" (3) — *All season form of Schwedler Norway (Deep Red)*
" " "Crimson King" (3) — *All season form of Schwedler Norway (Deep Red)*
" " "Goldsworth Purple" (3) — *All season form of Schwedler Norway (Deep Red)*
Quercus robur Condordia (4) — *Golden English Oak*
Acer pseudoplatanus Worleii (5) — *Golden Sycamore Maple*
" " Spaethi (5) (MT) — *Wine-leaved Sycamore Maple*
Acer pseudoplatanus Leopoldi (5) — *Variegated Sycamore Maple (Pink and White)*
Fagus sylvatica spaethi (4) (LT) — *Spaethi Redleaf Beech*
" " rohanni (4) (LT) — *Red Fern Beech*
" " Tricolor (4) (SC) — *Tricolor Beech (Pink variegated)*
Betula pendula purpurea (2) — *Purple-leaf White Birch*
Ulmus carpinifolia Wredei (4) (U) — *Upright Golden Smooth Leaf Elm*

## Needle Blight of Eastern White Pine

By MALCOLM A. MCKENZIE

*Director of Shade Tree Laboratories, University of Massachusetts*

During the early summer, a reddening of the new needles of white pine has been increasingly reported from all parts of Massachusetts. The tip, involving one-fourth to one-half of the needle, is commonly killed. Less commonly, the entire needle also may be involved.

In 1954, this condition was first noticed during a short period of hot dry weather following a record-breaking wet spring which had favored lush foliage development. From the appearance of the needles, the disease is appropriately called needle blight, but the primary cause of injury appears to be associated with damaged or inadequate root system. No fungus or insect has been found consistently on affected trees.

The disease is quite distinct from the white pine blister rust and bears no relation to this rust fungus disease. Trees affected with the needle blight often recovered in later years and it is not wise to remove pines on which needle blight is present unless the trees are dead or affected so severely that recovery is impossible.

The specific cause of the disease has not been precisely established. Any conditions which would damage or retard rootlets of individual pines might explain the observation commonly made this year that individual trees of various ages rather than entire stands are involved. For example, the extended drought of last summer might have damaged pine rootlets on individual trees in relatively unfavorable sites. During the rainy period this spring, water made available to the tree crown even from damaged roots could have been sufficient until hot dry days suddenly followed a cloudy, rainy period. Under these conditions, or similar ciricumstances, the poor balance between the injured or restricted roots and the lush foliage could not maintain the water requirements of the extensive needle growth in a hot dry period. Accordingly, pines typically affected are individual trees of a group growing on cleared land in the absence of pine needle mulch, where drought effects or injury to roots might be severe. Pines in stands opened recently, or pines in field sites and pastures, rather than trees in areas of typical pine forest stands have been affected.

Assistance for remedying the trouble is sometimes possible for prized trees. Fertilizer applied while trees are dormant may help develop feeding rootlets. The mulch of fallen dead pine needles may be retained as a protection against further damage to development of feeding rootlets which are near the surface of the soil. Watering ornamental pines, esepcially during periods of hot dry weather in early summer, may aid unaffected trees, but watering is not known to be of any help as a cure for damage already done. Except in the case of small trees, pruning is at best of limited value since this means of restoring proper balance between roots and crown distorts ornamental pines when the uppermost branches are removed.

Records indicate that during the last 50 years needle blight has killed relatively few white pines. The trouble is present to a limited extent almost every year, but may attract little attention in an average year. Suddenly, the injury may appear alarming as it did last summer. But if the record of similar previous years is borne out, many trees will recover slowly even completely in a year or several years, while a few trees with extensive root injury or relatively unfavorable sites may show needle blight in successive years and fail to produce typical normal growth.

## Labor Plus Material Equals Profit

*By C. L. Halvorson, New England Distributor of HELLER GRO*

Most of the readers of "Trees Magazine" are Tree Men and have learned that it is very difficult to make more than a fair living when depending upon labor alone. The average Arborist sells some material but not enough to make the difference between a fair living and a good living and I believe that most of you have given much thought to the idea of selling some additional material or some product which would make up the difference.

If you will look at some of the advertisements in Trees Magazine you can't help notice that many of the products advertised are now being sold by someone in the tree business or some one who was formerly in the tree business.

The main problem is to find the right product, make sure you are sold yourself and then sell it to others. You can if you work at it.

In my case the right product was Heller Gro. The first time I saw it I liked the idea of the principal which was Paste Fertilizer sold in a tube which could be dissolved in water and fertilize a plant or tree by spraying the foliage or through the roots. This was at the National Shade Tree Conference in Chicago in 1953. I was given a tube to try on my house plants which I did and the results were so amazing that I asked for and was granted the wholesale dealership in Berkshire County, Mass.

Each year I send a small gift to each of my clients. Last year I sent a tube of Heller Gro and this proved to be the best advertising stunt I had ever tried as I had no trouble in selling most of my clients in feeding their trees in conjunction with the regular insecticide which in the case of this area was elm leaf beetle spray. My spray volume was increased several thousand dollars.

The first day I had the wholesale dealership for Heller Gro I made 14 calls at various seed stores, hardware stores and even gas stations and general merchandise stores and made 14 sales.

I gave away several hundred tubes to Garden Clubs, clients and other prospects and I am very glad to say now that I sold more Heller Gro than any other single wholesaler in the country and because of this was asked to handle the distribution of H.G. in all of New England.

This is the only liquid fertilizer that I have ever used which seemed to be more than just a "shot in the arm" but seemed to have a lasting quality beyond anything I had tried before and believe me Heller Gro has made a lot of friends for me and helped a great deal to increase my volume of tree business.

This is my story and I believe that other tree men can do the same thing. There are many other good products. Other good fertilizers which any one of you could sell and make a living much better than you are now making with labor alone.

Find a good product, sell yourself and you can sell anyone.

I have used Heller Gro in both my hydraulic and mist machines with fine results and have fed many lawns and shrubs and I am very glad to be able to say that the results have been gratifying both in growth of the plants and my finances.

## The Southern Shade Tree Conference Program

APRIL 4, 1955

9:00 a.m.-11:00 a.m.—Registration.
11:00 a.m.—Invocation by Hackett C. Wilson.
11:10 to 11:15 a.m.—Welcome by Commissioner Camalier.
11:15 a.m.-12:00 Noon—"Developments in Insect Control," by James A. Beal.
12:00 Noon-1:30 p.m.—Lunch.
1:30 p.m.-2:00 p.m.—"Systemic Fungicides for Dutch Elm Diseases," by Howard S. Potter.
2:00 p.m.-2:30 p.m.—"Advances in Oak Wilt Research," by George H. Hepting.
2:30 p.m.-3:00 p.m.—"Status of Sweetgum Blight," by Fred H. Berry.
3:00 p.m.-3:30 p.m.—"Introduction of Commercial Exhibitors," by Hackett C. Wilson.
3:30 p.m.-4:00 p.m.—"Antibiotics for Plant Disease Control," by John C. Dunegan.
4:00 p.m.-4:30 p.m.—"Mycorrhizae in Relation to Tree Nutrition," by Edward Hacskaylo and John Palmer.

APRIL 5, 1955

9:00 a.m.-5:00 p.m.—Field trip by bus to the National Arboretum, Plant Introduction Garden, Glendale, Maryland, and Agricultural Research Center at Beltsville, Maryland, stopping for lunch at the Research Center at 1:00 p. m. During this trip, our group will be addressed by

several researchers who will explain the progress being made in fields of research relating to our profession.

6:30 p.m.-7:00 p.m.—Social Hour.

7:00 p.m.-12 Midnight—Banquet followed by dancing.

APRIL 6, 1955

9:00 a.m.-9:30 a.m. — "The Prospects for Systemic Insecticides," by Floyd F. Smith.

9:30 a.m.-10:00 a.m.—"Use of Chemicals in Clearing Right-of-Ways," by Warren C. Shaw.

10:00 a.m.-12 Noon—Business Meeting.

12:00 Noon—Adjournment.

## Dogwood Is Forest Pest— A Matter of Use Evaluation

Dogwood may add to the beauty of a forest in the springtime, but it's a pest so far as timber-producing trees are concerned, declares O. D. Diller of the Ohio Agricultural Experiment Station.

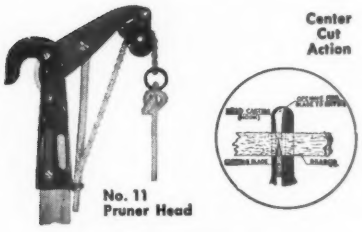
This tree will shade out young seedlings of more desirable trees because of its aggressive growth habits, Diller states. That means a lower volume of timber will be harvested in later years.

Diller, who is chairman of the Station's forestry department, made tests on ways of killing dogwood by using herbicides and brush killers. He learned that a 4 per cent solution of 2, 4, 5-T in kerosene was quite effective in doing the job. A mixture of 1 gallon brush killer to 4 gallons of kerosene also withered the trees. The brush killer contained 0.51 pounds of 2, 4-D and 0.5 pounds of 2, 4, 5-T per gallon.

Diller recommends using a 3 or 5 gallon knapsack sprayer with a wand attachment. This allows thorough coverage around the base of the tree. The trunk area from the root base to a height of 18 inches is the vital zone for spraying.

The forester estimates that on the basis of this test, a woodlot owner could eliminate dogwood trees for around $3 an acre including labor and material.

**The choice of tree men for generations**




**"TELEPHONE" TREE PRUNERS**

The very finest of tree pruners! Virtually unbreakable heads, selected spruce poles with positive locking, seamless aluminum joints. Simple, powerful action. No. 11-18, 1-in. capacity, $16.25. No. 12-18, complete pruner 1½-in. capacity, with 18-ft. pole, $25.25. Extension sections available.

**POLE PRUNING SAW**

No. 20 SAW HEAD
Head only $4.40
with 18-ft. pole $16.25

16" needle-tooth saw blade fits in 3 different positions. Extra large hook for pulling out loose branches. Paint brush holder.

**LOPPING SHEARS**

6 models to choose from. Cut up to 2" branches with ease.

**NEW, FINEST EVER PRUNING SAWS**

A new Seymour Smith development — the fastest, easiest cutters on the market. Complete line of 6 models covering all requirements up to chain saw work.

**FREE:** Send for full descriptive matter and prices on all Seymour Smith products for professional pruning and tree care.

SEYMOUR SMITH
OUR 105th YEAR
The Line of Quality

SEYMOUR SMITH & SON, INC.,
4603 Main St., Oakville, Conn.

**TREES Magazine**
*A Fine Gift*
*all year 'round*
1-year – 2.00
3-years – 5.00
**TREES Magazine**
Olmsted Falls, Ohio

Our business is stump removal without costly damage to curbs, sidewalks and cables. Developed after years of research, here is the inexpensive, practical answer to your removal problems.

**O'BRIEN STUMP CUTTER**

***tested and proven for performanace AND ECONOMY!***

*NO MORE BLASTING, BURNING, DIGGING . . . AND CUTS COSTS!*

With this one-man machine, mountable on almost any tractor, you can realize up to 75% in labor savings. The O'Brien Stump Cutter will cut out any size stump below the level of sidewalk or lawn area and reduce it to shavings. Compare these fast, low cost results with the old-fashioned stump removal methods.

**Write For Complete Details!**

**DISTRIBUTOR INQUIRIES INVITED**

Metal Parts Machining Corp.
WATERVLIET NEW YORK

# New Grandiflora Class of Roses

By W. E. LAMMERTS

During recent years the increased efforts of rose hybridizers to combine the abundant flowering habit and rugged disease resistance of Floribundas with buds and flowers of Hybrid Tea size, form and quality has led to an ever-increasing confusion as regards the classification of varieties resulting from such crosses. The situation is in many respects similar to that existing in the early 1930's when many of the Floribundas were first introduced. At that time, low-growing, small-flowered cluster types of rose varieties were classed as either Polyanthas or Hybrid-Polyanthas.

Originally, the term Hybrid-Polyantha was set up as a class name for the small-flowered, low, cluster-blooming hybrids between R. *polyantha* Siebold and Zuccarini (later recognized as a synonym of R. *multiflora* Thunberg) and R. *chinensis*. For a while, this terminology was clear cut, but later became confused, because many of these polyantha hybrids were in turn crossed with Hybrid Teas and other types. The resulting hybrids were also placed in the Hybrid-Polyantha Class, which from the botanical point of view was quite incorrect. Then, about 1935, a large number of worthwhile cluster types, such as Rochester and Smiles, originated by Dr. J. H. Nicholas, and Baby Chateau, produced by Wilhelm Kordes, further confused the picture. For example, Baby Chateau is a cross of the Hybrid Tea Aroma with a seedling obtained by crossing the low-climber Eva with the Hybrid Tea Ami Quinard. Though of compact habit and cluster flower type, it has no polyantha blood at all. About this time, Mr. E. L. D. Seymour suggested to Dr. Nicholas and Mr. Charles Perkins that these new hybrids might well be called "Floribundas." The excellent descriptive nature of this name was immediately appealing from the catalog point of view, and new varieties developed since then, such as Pinocchio, Fashion, Vogue and Floradora, as well as the older varieties such as Baby Chateau, were cataloged and described under this new class name.

Recently, however, it has become increasingly apparent that the flowers of a number of the newer hybrids cluster a good deal more than is typical of Hybrid Teas, but are much larger than flowers of such typical Floribundas as Pinocchio. As example is the lovely variety Fantastique which though classed as a Hybrid Tea, because of its low compact growth and tendency to cluster might well be more properly classified as a Floribunda. The appearance of these new hybrids in the All-America Trials has brought this problem sharply to the attention of the All-America Rose Selections group. Successive years of testing has proved certain of them to be unique, beautiful, and useful, and it was decided that they should be made available to the public at the earliest possible date. Since they cannot be rightfully classified as Hybrid Teas or Floribundas, it was decided that public interest could best be served by creating a new class. Mr. Albert Morris of Germain's suggested the name, "Grandiflora," as the flowers were larger than is typical of most Floribundas, and the plants because of their hybrid vigor are more on the "grand" style, tending to be taller and more robust in growth. This name was then adopted at the midwinter meeting of the All-America Rose Selections January 11, 1954, for varieties characterized as follows:

1. Plants of relatively tall growth;
2. Plants free flowering, often with many flowers in clusters but with individual stems long enough for cutting;
3. Flower size not necessarily as large as Hybrid Teas but larger than the average Floribunda;
4. Hybrid Tea standard for bud and flower form.

Habit of growth and performance with regard to the above distinctive features, rather than parentage, are to be the criteria for placing varieties in this new Grandiflora class.

The first All-America Rose Selection in the Grandiflora class has been named, "Queen Elizabeth." The unusually clear glowing flowers of Queen Elizabeth are a subtle blending of soft carmine rose and dawn pink, often called coral pink. They frequently occur singly on long almost thornless cutting stems. Even those occurring in clusters have stems long enough for cut flower use. A unique feature of Queen Elizabeth is that the individual flowers actually grow richer and more beautiful with age, eventually being very daintily peppered with carmine. When cut, they last longer for vase use than any other garden rose. The deep green, unusually large, heavy textured glossy foliage abundantly clothes the entire bush to the ground and is a majestic setting for these unusually pure pink, fragrant flowers. Exceptional vigor and disease resistance insure a healthier, more luxuriant growth all season long. Queen Elizabeth is, thus, an ideal specimen, accent, and tall border plant. It also makes an ideal background for lower growing Hybrid Teas which may then be bordered by low-growing Floribundas such as Lilibet or Polyanthas such as China Doll and Pinky. Queen Elizabeth is an interesting example of the need for the creation of this new class of rose. It is a cross of a typical Hybrid Tea Charlotte Armstrong with the Floribunda variety Floradora, both, All-America Rose Selections. The flowers, therefore, combine the elegance of Hybrid Tea bud and flower form with the abundant flowering habit of Floribundas.

Of further interest is the fact that Floradora itself does not have any Polyantha blood, being a cross of Baby Chateau x R. *multibracteata*. As mentioned above Baby Chateau traces back to Hybrid Tea and low-climber parentage. It is believed by All-America Rose Selections that the new Grandiflora class now makes it much more readily possible to properly catalog and describe the new varieties which will appear in the future as a result of greatly increased efforts of American and European hybridizers to develop for the rose-growing public the best characteristics available in both the Hybrid Tea and Floribunda group. In other words, a functional classification of roses into the small-flowered, low-growing true Polyanthas, the larger flower continuously blooming Floribundas, the Grandifloras, and the Hybrid Teas will be much more realistic, than the confusion resulting from attempts to classify roses from the botanical and parentage point of view.

We may expect in the future varieties combining the fragrance and bud form of Hybrid Teas with the continuously flowering qualities and rugged hardiness of Floribundas in a wide color range of great intensity and lasting quality. The graceful color changes as the flower ages, derived from the R. *chinesis* ancestry of certain Floribundas, may also be expected in these new hybrids.

**The "Last Friday in April" is Arbor Day**

POWERS *American*®

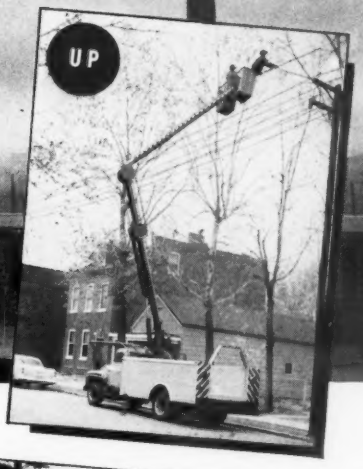
presents the

# "Sky-Master"

HYDRAULIC AERIAL BEAM

## THE ULTIMATE IN AERIAL EQUIPMENT

*IN TWO SIZES... FOR ALL TYPES OF OVERHEAD WORK*




SKY-MASTER carries two men . . . in reinforced plastic work baskets . . . to *any* point within its wide range of movement. The supporting mast, which rotates on roller bearings, can be revolved continuously . . . in either direction. The hydraulically-actuated inner beam can be moved to any point in an 85° arc, and the outer beam—actuated in combination with drive pulleys and ¾" wire rope—can be spotted in any position within a 265° arc. Movement of the beams and mast is controlled by three independent levers beside the work baskets. Hydraulic outriggers, on each side of the body, furnish absolute stability regardless of SKY-MASTER'S position. Insulation against 50,000 volts is provided by an abrasion-resistant covering on the outer beam.

Operating features and construction details are described in Powers-American Bulletin No. 410. A copy, with price information, will be sent on request.

SKY-MASTER can be installed on a Powers-American Body which fits individual work requirements. SERIES AB-37 has a ground-to-basket floor height of 37', SERIES AB-43 extends to 43', enabling two men to work 48' above ground.

POWERS-AMERICAN DIVISION

**McCABE-POWERS AUTO BODY COMPANY**

5900 NO. BROADWAY • ST. LOUIS 15, MO. — 625 CEDAR STREET • BERKELEY 10, CALIF.

## Chestnut Blight

Imagine what our forest preserves would be like if all the oaks died! That is what happened to the millions of chestnut trees that were formerly so plentiful from southern Maine and Ontario to Georgia; west to Indiana, southern Michigan and nothern Mississippi; and especially in the Appalachian chain of mountains. That is why the discovery of the oak wilt disease which has killed so many oaks here in Cook County and in at least 18 states, has thrown foresters and lumber men into such a dither.

Forty years ago, gathered around a fireplace in an eastern college town, we students used to roast chestnuts in the embers. On the street corners downtown they were sold, piping hot, for a nickel a bag. Those sweet-flavored kernels were a delicacy. Altho the "spreading chestnut tree" in Longfellow's poem about the village smithy happened to be a horse chestnut, it is true that the streets in many New England villages were shaded by big wide-spreading American Chestnut trees. They were one of the most common and valuable trees in the forests. Not now! They're kaput.

In 1937 we traveled the Skyline Drive along the crest of the Blue Ridge Mountains in Shenandoah National Park. The views were magnificent but we were shocked and saddened to see the graveyard of a forest. The mountain sides were thick with bare weather-bleached snags of dead chestnut trees. Their gaunt trunks, some of them huge and with a few of the larger limbs remaining, rose like tombstones above dense tangles of undergrowth and vines. Around the base of most dead snags and fallen monarchs were thickets, often 10 to 15 feet across, of young chestnuts—apparently sprouted from the long-lived roots of the parent trees. Some probably had sprung up during the preceding year; others were larger and occasionally there was one 3 or 4 inches in diameter but on the stems of these were the ugly cankers formed by the blight-causing fungus that kills the inner bark, and many were already dead or dying.

The American Chestnut and the smaller, more bushy Chinquapin of our southeastern states, are two of seven species of chestnuts native in the northern hemisphere. Suited to a wide variety of soils, the former attained greatest size in the southern Appalachians where one monster was reported to have a trunk diameter of 10 feet and trees with diameters of 5 or 6 feet, from 80 to 100 feet high, were not uncommon. The tapering trunk had several large branches, often horizontal when growing in the open, to form a broad, somewhat pyramidal crown. The leaves were from 6 to 8 inches long, about 2 inches wide, with coarse hooked teeth along the edges. In early summer, it bore long spiky catkins of male flowers and shorter catkins of both male and female flowers followed by the fruit: 2 or 3 nuts enclosed in a bur covered with long needle-sharp branched spines. The wood, though coarse, light and not very strong, was very durable and desirable for posts, telegraph poles, railroad ties and other purposes. Chipped-up chestnut wood was one of the principle sources of tannin, used in tanning leather, the chips then being used to make pulp for paper or cardboard.

The blight was first discovered near New York City in 1904, before we had plant quarantine laws, probably from fungus on young chestnuts, imported from China or Japan, which are resistant to it. It spread like wildfire. Today there are only a very few mature American chestnuts alive — notably in Massachusetts, Wisconsin and southern Illinois. The disease is now ravaging Italy where the European chestnut, as a nut producer, ranks next in value to the grape vine and olive tree. Somep'n like communism, eh?

*Forest Preserve District of Cook County*


# Spray more per day with the John BEAN 100-ROTOMIST

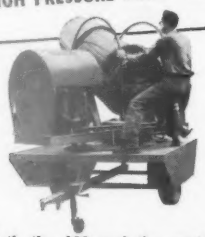
**. . . because of these EXCLUSIVE features:**

GREATEST "RATE OF WORK" CAPACITY OF ANY MIST SPRAYER

STRAIGHT-THROUGH AIR DISCHARGE WITH AXIAL FLOW FAN

HYDRAULIC TURN TABLE AND AIRPLANE-TYPE CONTROLS

HIGH PRESSURE PUMP WITH "SAPPHITE" LIFE-TIME CYLINDERS



Both the 100 and the medium capacity 75-Rotomist (shown above) come in trailer-mounted models as well as for truck-mounting. Get full details today.

Providing the greatest "rate of work" capacity on the market, the John Bean 100-Rotomist gives you 28,000 cubic feet of air volume, spray delivery to the whirl-mist nozzle at 400 pounds pressure and 100-gallon tank capacity. In a day's time, you spray more trees . . . sanitize larger areas . . . more effectively. A Rotomist works fast, yet assures thorough coverage and penetration with minimum use of spray materials.

Operators like the Rotomist's effortless hydraulic 360° rotation and full 110° vertical pivoting . . . it's spring-filled seat and back rest. Budget-wise owners like its fully enclosed transmission and plunger-type pump, both with positive lubrication . . . among the many outstanding features that mean trouble-free operation.

*Write for details on a new Rotomist use — leaf windrowing!*

Write for new 1955 Rotomist Catalog

fmc

**John BEAN**

Division of Food Machinery and Chemical Corporation

LANSING 4, MICHIGAN
SAN JOSE, CALIFORNIA

**You Saw Their Ad in TREES**

DOW

# DOW PRODUCTS

## GIVE ALL-AROUND BRUSH CONTROL ON RIGHT-OF-WAYS

## ESTERON Brush Killer and ESTERON 245 cut maintenance costs

A "crew" of Dow chemicals, used separately or as a team, will cut your maintenance costs to a new low. Esteron® 245 is highly effective for year-around brush control when used as a foliage spray or for basal bark and stump treatment. Esteron Brush Killer is widely used as a foliage spray for brush control.

In addition, Dow offers two new products to solve specific vegetation control problems. Kuron, new Dow brush killer containing silvex, has shown good results on post oak, blackjack oak, white oak, Northern pin oak and other oak species as well as red and hard maples. Where grass control is desirable in poleyards and around substations, Dow Dalapon Sodium Salt 85%, new *systemic* grass killer, is recommended. It can be used in combination with 2,4-D to control *both* broad-leaved weeds and grass. Ask your supplier how Dow products can cut your maintenance costs and help you get positive weed and brush control. Or write THE DOW CHEMICAL COMPANY, Agricultural Chemical Sales Department, Midland, Michigan. In Canada: Dow Chemical of Canada, Limited, Toronto, Canada.

*you can depend on DOW AGRICULTURAL CHEMICALS* DOW

## Leaf Analysis

*(Continued from Page 8)*

spectrograph have made it possible to analyze leaves rapidly, effectively, and at relatively low cost. If leaf analysis is to have value as a diagnostic tool, the analyses must not only be accurate but sufficiently rapid to permit application of treatment the following season.

To be analyzed spectrographically, the leaf sample is first dried, ground to a fine powder, and ashed at 500 - 600°F. The ash is dissolved, the solution placed on an electrode, and burned with a high voltage electric spark or arc. This causes each of the elements to emit a characteristic light which is passed through a prism and recorded on a photographic plate as a series of dark lines or bands. The amount of light produced by the element determines the amount of that element present in the leaves. Phosphorus, calcium, magnesium, manganese, copper, boron, iron, and zinc are commonly determined with the spectrograph. A flame photometer is used for potassium and chemical methods used for nitrogen.

### Using Leaf Analysis

The use of leaf analysis to determine nutrient content is not a new idea. The use of leaf analysis as a diagnostic tool to determine nutrient needs is new. The possibility of determining fertilizer needs, preventing the development of nutrient deficiencies and unwise use of fertilizer is new and exciting. For many years, Horticulturists and Agronomists have used leaf analysis to confirm nutrient deficiences and fertilizer responses. This research has resulted in a wealth of information from which diagnoses may be made. Horticulturists agree that a better estimate of fertilizer needs for fruit crops can be made if leaf analyses are available.

A Leaf Analysis Service is available for fruit growers in Michigan. When sufficient interest is shown, it would be made available to nurserymen, park superintendents, and others interested in the care of trees, shrubs, and other woody perennials. The Leaf Analysis Service in Michigan is established so that the grower collects the sample in July and August according to directions. After the sample is air dried, it is sent to the Horticulture Department, Michigan State College, with information pertaining to the conditions observed. After the sample is analysed, an interpretation of the results is placed on a Nutrient-element Balance Chart. This Balance Chart is sent to the grower together with suggested methods of correcting any defiiciencies or shortages.

Standard values have been developed for the tree fruits—apple, peach, cherry and pear. Other fruit crops and ornamental species are receiving active attention. There is no real need to wait for standard values to be developed. The problem may be handled by comparison with a sample from a healthy plant. This requires the analyses of samples from both a healthy and unhealthy plant, and the interpretation will be based upon the assumption that the healthy plant has had an ample supply of nutrients.

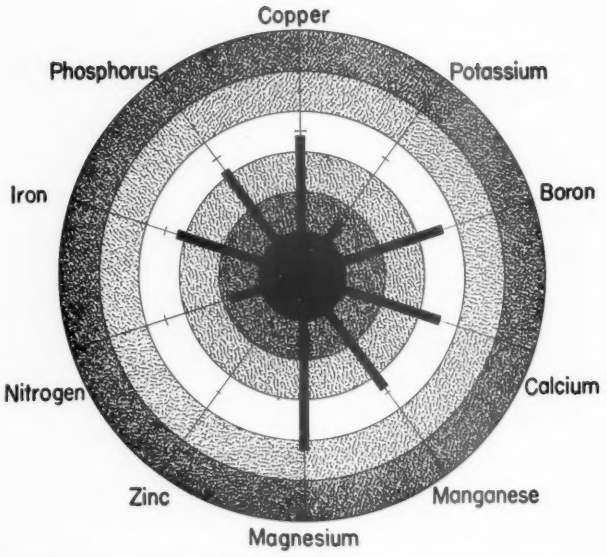



*Figure 3. A Nutrient-element Balance Chart showing nitrogen and potassium deficiency of your TAXUS plants.*

### Some Examples

Perhaps the promise and value of leaf analysis can best be shown by examples. A peach grower sent in a leaf sample thinking that his orchard had magnesium deficiency. Leaf analysis (Figure 1) showed that the trees had severe potassium deficiency. An application of dolomitic lime to supply magnesium would have made the deficiency worse. An apple leaf sample was received and the grower believed he had boron definiency. Leaf analysis (Figure 2) showed that the trees were in a condition of manganese toxicity. An application of boron may have been lethal to the trees. Young *Taxus* plants were received and observations indicated iron deficiency. Leaf analysis (Figure 3) showed an acute potassium deficiency which was also limiting the absorption of nitrogen. The use of potassium should correct the deficiency of nitrogen.

A widespread occurrence of magnesium deficiency is being prevented through leaf analysis. Based on leaf analysis, a liming program is being initiated in Michigan orchards. Without leaf analysis to confirm the need for magnesium and calcium, lime applications can result in a deficiency of potassium, iron, manganese, and other nutrients. To prevent these deficiencies from being induced by lime applications, evidence of their sufficiency prior to liming is needed.

The results of the Grower Service Leaf Analysis samples in 1954 showed that there was not a large number of cases with acute deficiencies or toxicities of nutrients, but "hidden" deficiencies of boron and/or manganese were found in over 50 per cent of the samples. If leaf analysis can prevent the widespread occurrence of these deficiencies, trees and shrubs should benefit through improved growth, increased production, and better quality of flowers and fruits.

---

**HUGH ROY CULLEN, by Ed Kilman and Theon Wright. Prentice-Hall, Inc. 70 Fifth Ave. New York 11, N. Y. 376 pgs. illus. $4.00.**

**The rugged individualist is a vanishing breed, but Hugh Roy Cullen—one of the world's wealthiest and most individualistic men—is still going strong at 73. Slightly stooped, but stalwart and broad-shouldered . . . his face rough-hewn, as if carved from a weather-beaten rock . . . Cullen emerges from his soon to be released biography as the most fabulous of all Texas oil titans and one of the greatest philanthropists of our time.**

**HUGH ROY CULLEN . . . A STORY OF AMERICAN OPPORTUNITY, traces the career of the "King of the Wildcatters" as he progressed from a typical small town boyhood to a position of uncountable wealth. It recounts his unwavering faith in the future of America and describes the unceasing toil that eventually led to world-wide renown.**

**For more than 30 years, this tall, leathery Texan has been pumping money out of the earth, in the form of oil, and pouring it forth again in a flood of philanthropy such as the world has rarely seen.**

**Cullen now seems to be devoting as much energy to giving it away as he did to getting it.**

## New Zealanders Claim Monterey Pine As Own

It may come as something of a shock to Californians to learn that the Monterey pine not only is considered a highly valuable timber tree in Australia, but it is marketed under the guise of "New Zealand Pine."

This was reported to horticulturists of America last week by Victor C. Davies of Duncan and Davies Nurseries, New Plymouth, New Zealand, who is known as one of the largest single growers of Monterey pines in the world. In one year, he has exported as much as three tons of seed to France.

Coming to California at the invitation of Max Watson of San Jose, with whom he has corresponded for many years, Davies saw the Monterey pine on its native ground for the first time, expressed the opinion that Americans are missing a bet by not developing Pinus radiata as a forest product.

That Davies has achieved prominence in other horticultural fields was evidenced by the Peninsula Chapter of California Association of Nurserymen, Western Chapter of National Shade Tree Conference and the California Arborists Association.

It was emphasized during the session, that Davies has been the moving spirit behind the great Pukeiti Rhododendron Foundation. This organization has been given 300 acres of woodland on which it is planting all available species of rhododendrons and azaleas as well as other adaptable plants.

Prior to the session, Davies toured Golden Gate Park plantings in San Francisco, saw Sunset gardens at Palo Alto, was guest also of Ray D. Hartman and Munsell Van Rennsellaer at the Saratoga Horticultural Foundation. He now is visiting other gardens in Southern California.

California plants, Davies told horticulturists, have found a special place in New Zealand plantings. Among those that have become popular in addition to Monterey pine are Douglas fir, Sequoia sempervirens or coast redwood, the Fremontia, some species of Ceanothus, Monterey cypress and Port Orford cedar.

California gardeners, however, are benefitting from the work of New Zealanders, it was added, since such organizations as the Saratoga Horticultural Foundation has for some time been bringing in small types of New Zealand trees for testing here. Several of these show promise, it was added, including Entelia arborescens, Nothofagus fusca, Metrosideros tomentosa, and an unidentified Pittosporum.

Monterey pine, he told the meeting, was brought into New Zealand back in 1860 by Yankee sea captains who were described as great plant collectors and distributors. As native trees began to grow scarce, the pine became more popular as a timber material, and the result is that more than one-half of the homes in New Zealand are built of the wood.

To meet the demand for the tree that is indigenous to the Monterey Peninsula, New Zealanders have planted immense forests, and shelter belts, also have converted waste lands to useful purpose with the Monterey pines. One planting, called a "a perpetual forest," includes 240,000 acres, more than four-fifths of which is Monterey pine.

Making better use of the wood, rarely used for lumber in the U. S., New Zealanders use a process called "tinilising," which impregnates the lumber with a preservative, makes it harder. In this condition, it is exported to Australia under the name of "New Zealand Pine." The trees take about 25 years to mature and have been found as large as six feet in diameter.

Reason for the success of the pine, Davies said, is New Zealand's climate. In New Plymouth, he went on, average rainfall is 60 inches per year, a moisture supply that comes evenly during every month of the year. In fact, if three weeks pass without rain, New Zealanders consider a drouth is on hand.


**USE BARTLETT SAWS**

**No. 114B—Special Utility Saw combines for the first time: *Quick* cutting, *Smooth* cutting, *Easy* operation.**

TREE SURGERY SUPPLIES
TRADE MARK COMPOUND
Bartlett Mfg. Co.
3028 E. Grand Blvd.
Detroit, Mich.

**Write now for details and complete catalog including road signs.**

**HELLER-GRO**
REG. U. S. PAT. OFF.
**COMPLETE PLANT FOOD**

**THE SURE ANSWER**

Many Shade Tree Members have found that HELLER-GRO produces best results in both foliar and jet feeding of trees, and that it develops strong, deep-rooted turf of richest color. HELLER-GRO is NOT a "shot in the arm," but a complete balanced food which brings prolonged growth response, yet improves color quickly.

This highly concentrated paste is completely and quickly soluble. The solution positively will not burn. Made from USP grade chemicals only, it is a high grade product which can be depended on. TRY IT!

**New England Distributor.**

**Craig L. Halvorson**

**150 North Street** **Pittsfield, Massachusetts**

*Or write to:*

**Gordon H. Knowles, Representative**

**P. O. Box 19**
**Newtown Square, Pennsylvania**

## Street Tree and Utility Conference

*(Continued from Page 7)*

there are certain compromises which can be made in the street lighting system. These compromises involve deviations from preferred system layout with respect to luminaire spacing, mounting height, and transverse location.

David M. Baldwin's paper "Why Street Lighting" enumerated reasons for having street lights. He pointed out that Denver reported an 18% reduction in night accidents following the installation of improved lighting. Kansas City reported for 97 miles of streets and the data show a reduction of 31% in night injury accidents following the lighting improvement.

"The Cultural, Aesthetic and Historic Background of Tree Use Along Roadsides" was the subject presented by Charles A. Young, Jr. (Park Forester, Baltimore). He stated that Washington, D. C. would not command the worldwide esteem and recognition as a beautiful city if the tree lined streets and parks were not the dominating feature of the landscape. Shade trees are essential to the community for their contributions that cannot be duplicated or replaced by structures or other plants. Shade trees perform functions that favorably affect the health and well being of the people and contribute to the aesthetic and cultural values of the community.

"Coordination of Telephone Lines with Street Trees" was discussed by F. Woodland (American Telephone and Telegraph, New York). He stated that the Bell System is vitally interested in maintaining the beauty of the streets in every community in which it operates in order to promote good public relations and uphold the quality of the community. They are anxious to protect the healthy shade trees and avoid interference with them and to work with other utilities to make the distributing lines as unobtrusive as possible. Mr. Woodland said that his company has been able to eliminate some potential sources of trouble by working with communities to have unsafe trees removed before they are blown over. Such unsafe trees are not only a hazard to telephone and electric lines, but when they fall they also block streets and damage private and public property unnecessarily.

George J. Vaupel in his talk "Street Tree and Telephone Line Coordination in New Jersey" stated we know the need for and the value of beautiful tree lined streets and roads. Our interest is in not just more trees, but more of the right kind of trees properly planted. Utility line clearance and especially that portion of it requiring the trimming of trees, is absolutely essential in providing the reliable and continuous service demanded of overhead telephone and power lines.

Following the banquet Edward H. Scanlon (Edward H. Scanlon & Associates, Consulting Arborists) presented, through the medium of colored slides, a paper on "Selection and Use of Trees to Minimize Public Area Conflicts." Shown were a number of streets where old conflicting trees had been removed and new in-scale trees installed. The difference was quite revealing. Other slides showed the many different forms and shapes of trees that the street tree planter must learn to use so that street trees of the future will be beautiful and useful. Many fine flowering and foliage trees in the small tree category were shown. Delineated were the principles of evaluating street factors for the scientific selection of a tree.

"Subsurface Problems of Trees and Utility Structures" was discussed by Samuel S. Baxter (Water Commissioner, Philadelphia). He commented on the fact that the tree has one basic shortcoming. It must occupy space both above and below the street, and both of these at the same location. Mr. Baxter pointed out that in recent years Philadelphia has adopted for all bell and spigot joints in concrete and vitrified pipe under 42-inches in diameter, a semi-flexible joint which has given good results in preventing openings and leakage.

George D. Blair's (Forestry Consulting Services, Jackson, Michigan) paper "Tree Work and Engineering to Effect Sound Overhead Conductor Clearances" pointed out that outmoded tree planter and line builder customs, habits and practices of the past have been parlayed over the years into serious present tree and wire conflict problems in many communities. Excessive annual tree control costs, severe tree caused service interruptions, and inadequate overhead plant investment protection may reflect this problem in power and telephone company operating records.

John L. Rego (Director of Agriculture and Conservation, Rhode Island) in his talk "1954 Hurricanes Pin-Point the Need for Long-Range Coordinated Programs" raised the question as to why New England did not grasp the opportunity for fresh thinking about shade trees after the 1938 hurricane. Mr. Rego said that certainly the companies that supply us with power and telephones are interested in promoting the attractiveness of the communities in which they operate — attractive communities usually develop good business, and good business for the community is good business for the utilities.

"Why Overhead Lines" was the subject presented by G. E. Dean (Public Service Electric and Gas Co., Newark, New Jersey). He stated that it was recently proposed that existing overhead plant on a street in Camden, New Jersey be placed underground. An office estimate placed the cost at $82 per street foot. Since the present paper money is 2½ inches wide it would be necessary to place $20 bills side by side with ½-inch spacing down the center line of the street in order to pay for the underground installation.

A recent program of reinforcement of the underground supply network in Newark indicated that an underground manhole with transformer, network protector and cable connections within the manhole costs about $16,000. In other words, a completely equipped network manhole alone duplicates the cost of a five-room house and lot in a modern real estate development.

"Coordination in the Los Angeles Area" was discussed by R. E. Dahlin (Southern California Edison Company, Los Angeles). He commented on his companies education program and the brochure they had prepared. Fifteen thousand copies have been distributed to date and an even greater number will be sent out this year. The booklet is sent to town and county officials, to nurseries, garden clubs, landscape architects, newspapers. It is also used in all schools having a class in horticulture or agriculture.

"An Example of Coordination in Street Tree Management in Rochester, New York" was presented by Frank J. Schmitt (Rochester Gas and Electric Corporation). He stated that with a broader appreciation and acceptance on the part of the public for us to carry on better trimming, by all means let's maintain the best of public relations through a planned and informed treatment of street trees rather than a hit or miss spasmodic approach.

R. Hicock (Connecticut Light and Power Company, Hartford) paper "Cooperation: Connecticut's Approach to the Tree-Wire Problem" pointed out Connecticut is attempting to solve the "Tree-Wire" problem by a very broad-based cooperative effort. The wire-using utilities of the State and twelve organizations and services have formed a committee whose purpose is to reach a "specific joint proposal for cooperative action" for filing with the State Public Utilities Commission.

Mr. Hicock stated that we feel as utilities that we are in a much better position to obtain sound and lasting results through a broad-based, state-wide community-supported program than we would if we worked solely along the lines of limited utility self-interest. By so doing, we have a tree program which we can promote on the basis of public safety, health, esthetics, economics—as well as service continuity.

"Harmony Is Essential to Successful

*(Continued on Page 22)*

ZELKOVA SERRATA
DED RESISTANT

BUISMAN ELM
DED RESISTANT

**THERE IS STILL TIME**
**TO ORDER**
**These Four Outstanding**
***"TAILORED TREES"***
**Reduce Street Conflicts**
**With Trees That Fit**
**Planting Sizes Available**
**5'/7' – 6'/8' – 8'/10'**

TAILORED TREES
"To Fit The Space"

**Edward H. Scanlon & Associates**
*"The Tailored Tree Nursery"*
**7621 LEWIS RD.**
**OLMSTED FALLS, OHIO**

CLEVELAND NORWAY MAPLE
SUPERLATIVE FORM

OSTRYA-HOPHORNBEAM
ONE OF THE BEST

# Azaleas, Rhododendrons, Trees Make Beautiful Roots in "Green Thumb"

**GREEN THUMB AERATES—HOLDS MOISTURE—AIDS ROOTING**

1. 97% pure, organic sedge reed, bacterially high content.
2. One cubic foot makes upward to 50 cu. ft. of good soil, or 15 cubic feet of rich organic soil.
3. Excellent natural nitrogen—readiness to use—going to work at once.
4. Delightful flowing into the soil in handling—uniform structure creates maximum economy.
5. Normal moisture holding, with gradual delivery only to soil and plants assure the maximum in plant development.
6. A product processed, based on 30 years proven continuous operation, has a ph of 4.5 to 5.5, that is quickly, easily and economically adjusted to needs of any plant material.
7. The most efficient and economical soil building nature product in existence.

***"Green-Up America With Green Thumb Peat"***

**PRICES ON TRUCK OR CAR LOADS ON REQUEST**

**GREEN THUMB PEAT-HUMUS CO.**
CAPAC, MICHIGAN

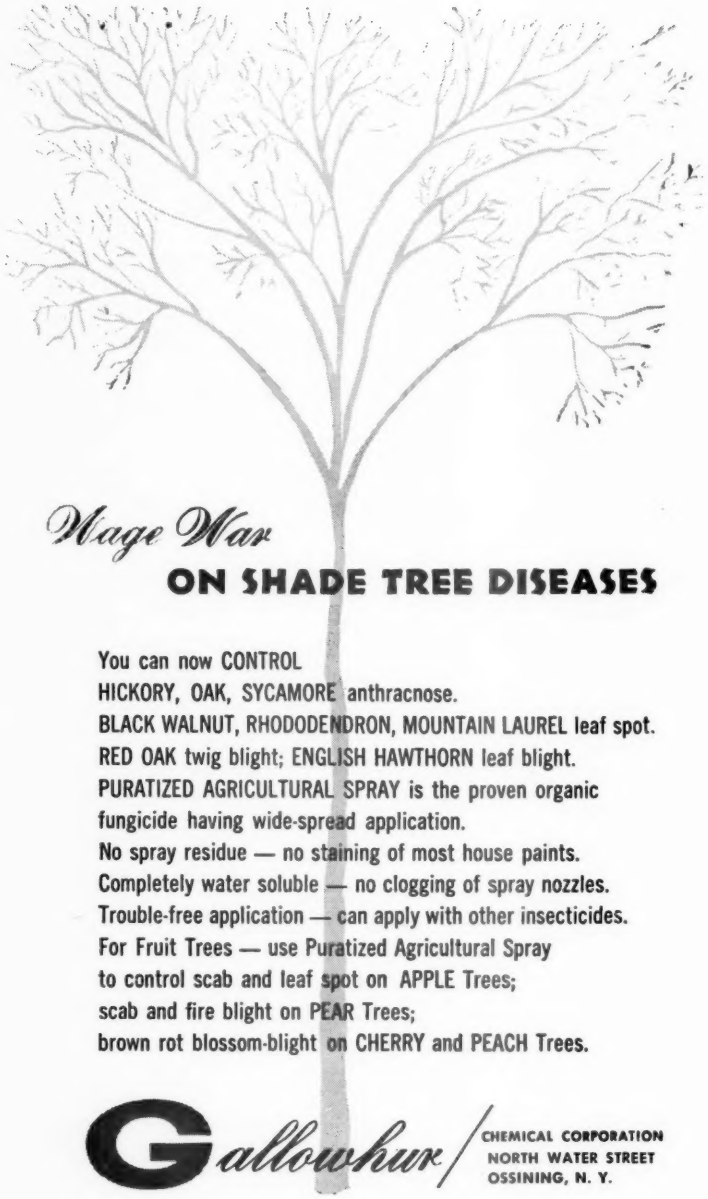
Street Tree Management" was presented by J. A. Sweeney (City Forester, Toledo, Ohio). He declared the quietest but most deadly battle the street trees in Toledo have to fight is that with sidewalks. The tree roots of the elms and soft maples raise and break the sidewalks. The engineers cut the roots and put in new walks that are again raised in a few years. The cut roots rot and in time the trunk is so weakened that it becomes an easy victim to wind storms.

Mr. Sweeney said the ice storms proved that it is unwise to continue to plant tall growing trees. It is not only because they cost too much to handle, but also because they can interfere with the utilities that mean so much in our lives today.

E. G. Stahl (Pacific Gas and Electric Company, San Francisco) commented on "The Pacific Gas and Electric Company's Selective Tree Planting Program." He declared that trimming costs have become a major item of operating expense for the utility and these costs are increasing at a rapidly accelerating rate. From 1944 to 1954 P. G. and E.'s annual cost for tree trimming increased from $423,000 per year to $1,434,000. Projected to 1960 the indicated cost is $3½ million per year. The employment of tree experts to do the job on a contract basis has eased the work load of utility personnel, and has greatly diminished customer complaints, but the yearly increased expense is an item of much concern. Furthermore, trimming even when done by experts does not provide full protection from storm damage resulting from trees or broken limbs falling into power lines.

Harry T. Sealy (Cleveland Electric Illuminating Company) spoke on "Examples of Coordination." He declared that the greatest cause of service outages in the normal electric system is the result of conflict between trees and power lines. We could be short-sighted and blame this on the trees, but we must remember that trees are good citizens—that trouble arises only when they are found in the wrong place. Mr. Sealy further stated that his company employed a consulting arborist who has made expert surveys of several communities. Master street tree plans have been worked out by which the town can guide its tree planting for many years to come. In addition to such master street tree plans, all communities are offered a complete tree program. This includes expert aid in setting up the means and techniques for organizing and financing such a program. It offers a great deal to the community, and it promises to coordinate light installations with tree plantings for many years to come. Of

*(Continued on Page 23)*

*Wage War*

**ON SHADE TREE DISEASES**

You can now CONTROL
HICKORY, OAK, SYCAMORE anthracnose.
BLACK WALNUT, RHODODENDRON, MOUNTAIN LAUREL leaf spot.
RED OAK twig blight; ENGLISH HAWTHORN leaf blight.
PURATIZED AGRICULTURAL SPRAY is the proven organic fungicide having wide-spread application.
No spray residue — no staining of most house paints.
Completely water soluble — no clogging of spray nozzles.
Trouble-free application — can apply with other insecticides.
For Fruit Trees — use Puratized Agricultural Spray
to control scab and leaf spot on APPLE Trees;
scab and fire blight on PEAR Trees;
brown rot blossom-blight on CHERRY and PEACH Trees.

Gallowhur / CHEMICAL CORPORATION
NORTH WATER STREET
OSSINING, N. Y.

**Complete Line Of Tree Supplies**

New Improved Tree Paint Cans With Built In Brush
New All-Leather Climbing Saddles
Drop-Forged Saddle-Rope Snaps That Are SAFE
Fanno Saws

*Send for new catalogue*

**Fruit Growers of Chester County, Inc.**
WEST CHESTER, PA.

**You Saw the Ad in TREES**

## Santa Barbara

*(Continued from Page 9)*

decayed and top-heavy enough to warrant severe topping. During my long life I've been presented with a bronze plaque by the Daughters of the American Revolution and have been mentioned in a government handbook written about famous trees in the United States."

3) "Because I am 82 feet tall and have a branch spread of 104 feet, I am well known as one of the largest of the Umbellularia californica or California-Laurel. People of Santa Barbara call me "The Laurel of San Marcos" due to the fact that I've been living at the side of the now existing San Marcos Road for approximately 300 years. Our family is native to southern Oregon and California. Usually we are medium sized and have dark dense green foliage. Some folks call us the Oregon-Myrtle, Pepperwood or Bay tree. Aside from being an attractive street or garden tree we are helpful in the kitchens of America. Our pungent odor is well known and when our leaves are dried they are useful for food flavoring (in soups, spaghetti dishes, et.). Our wood is heavy and hard so is suitable in cabinet work. The Indians in days gone by roasted our nuts and consumed them as a stimulant. I am, to this date, a healthy specimen and shall await your inspection next August."

Actually these stories are only a few which can be related by trees of Santa Barbara. There are the many varieties of fruits, oaks, pittosporum, palms, gum, pines, jacarandas, bauhinias, chestnuts and others. Not all are individually famous but each in its own way attractive, useful and willing to be admired and studied by the members of the National Shade Tree Conference.

## Street Tree Conference

*(Continued from Page 22)*

course, this is not the sort of coordination that pays off at the end of the year. But we are thinking in terms of decades.

Mr. Sealy ended his talk by saying that there is a great need for this work. Neither the utilities, the communities, nor the tree people can do the job alone. The need is there, the means of fulfilling that need are at hand. Let's make our principles of coordination a living reality. Let's all work smarter to lick a problem which has plagued us all since the birth of our industry.

IF YOU'RE A PRO* YOU'LL WANT THE NEW

STRUNK PRO

4 hp., 28 lb. CHAIN SAW

LOWEST PRICE ON THE MARKET FOR A SAW THAT DOES "EVERYTHING"

only $259 (f.o.b.)

*Complete* with 16" Chain and Bar. Guide Bar lengths available through 24".

Here it is! The saw that professional woodsmen have been waiting for . . . at a price that spells *profit.*

PRO cuts with full power in *any* position. It's handsome, simple, rugged—built by Strunk, famous for highest quality chain saws at lowest prices. PRO is full of new features for easy handling, lightning-fast cutting, long service. The minute you heft it you'll know it's the saw for you. See it . . . try it at your dealer's now.

**PRO IS PACKED WITH FEATURES**

Fool-proof Pump Diaphragm Carburetor and Fuel System
All-position Cutting
Positive Chain Tightener
"Burn-proof" Triple-life Guide Bar
Automatic Clutch & Lubrication
One-finger Trigger Control

** Greatest value in the Chain Saw field for the man who CUTS TIMBER for a living*

**HARVESTOR—**
4 hp. 28 lb. Rugged, geared-drive model for two-position cutting. Guide bar lengths available through 24".

**$239** (f.o.b.) with 16" Chain and Bar

*And the lowest priced full quality saw on the market today*

SpeeDemon

3½ hp. 26 lb. Now for the first time... Strunk offers a direct-drive chain saw featuring exclusive all-new "hardite" and "diamondite" guide bar. Designed specifically for long wear by professional users under all conditions.

**$179** (f.o.b.) with 16" Chain and Bar

**STRUNK CHAIN SAWS, INC.**
422 Coatesville, Pa.

☐ Send name of my nearest Strunk dealer
☐ Send more information on the all-new Strunk "hardite" and "diamondite" guide bars.

Name_____
Address_____
Town_____ State_____

# NAA NEWS

By PAUL E. TILFORD, *Secretary*
Box 426, Wooster, Ohio

*Pittsburgh Meeting*

Keen interest was evident among National Arborist Association members attending the Association winter meeting at Pittsburgh, January 31 and February 1. The program was of the work-shop type with selected subjects presented by leaders and followed by discussion periods for the raising and answering of questions. Some main points brought out by the discussion leaders were as follows:

In speaking on *Planned Programs of Tree Maintenance,* Vance I. Shield, Shield Shade Tree Specialists, Clayton, Missouri, said that he endeavored to get all of his clients on a program of tree maintenance rather than to sell them individual jobs year after year. With a new client a survey of all the trees on the property is made. Recommendations to remove certain trees are often made, as well as to plant in certain locations. Necessary pruning, bracing, fertilizing and spraying for proper maintenance is outlined. This is submitted to the client as a written recommendation as to what should be done annually to maintain and improve the tree planting according to the proposed plan. If the client approves the plan then Shield checks with him each year to be sure he is still sold and will continue along the general line of the plan before work is done that year. It is impossible to make and carry out such plans of tree maintenance with all clients but where it can be arranged the tree service company can give better service for less money than if each individual job must be sold.

H. M. Van Wormer, Van Wormer Tree Service, Richmond, Virginia, in discussing *A Nematode Control Experience with Shade Trees and Boxwood* reported that some big boxwood and trees of various species moved during the past few years in Virginia failed to recover promptly. They would appear to stand still or gradually decline. Investigation showed that new roots would form and then decay. Also the small feeder roots in the balls of the transplanted specimens would die.

Through the help of some leading nematologists the problem was diagnosed as primarily nematode damage. The plants had received a set-back or check as a result of moving. Then the additional injury caused by the nematodes working on the roots was more than could be tolerated and decline would occur.

Nematodes are microscopic eel worms, present in vast numbers in all soils and natural bodies of water. Most nematodes are non-injurious but certain species attack the roots of plants and a few damage the stems and leaves in some plants. The Meadow Nematode and some related species pierce the root hairs and the epidermis of small feeder roots. They damage the roots by sucking out plant juice and by making wounds through which root rot organisms can gain entrance. It is the Meadow Nematode and others which cause this type of root injury that are believed responsible for the boxwood and tree condition encountered by Van Wormer.

After considerable research Van Wormer devised a treatment which he applied this past season to large numbers of boxwood and trees damaged by nematodes. Both recently transplanted and established plantings were treated. Following the treatment the root decay stopped, new root growth developed and the plants began to recover.

Van Wormer did not reveal the exact nature of his treatment. Further testing and use of the treatment is to be made by him and members of the Association before it is released for public use.

John P. Meszaros, Extension Floriculturist, Pennsylvania State University; H. N. Engledow (President N.A.A.), Midwestern Tree Experts, Indianapolis, Indiana; and Theodore Parke, Parke-Speed Tree Service, Columbus, Ohio, composed a panel to discuss *Chelated Iron—Its Possible Use in Tree Care.* In many localities chlorosis of pin oak, sweet gum and many other kinds of trees is common. The usual cause of chlorosis (yellowing of the leaves between the veins) is lack of iron in the leaf tissues. Iron is generally present in the soil but under some conditions, especially in soils containing lots of lime, the iron is unavailable to the tree.

Engledow and Parke gave their experience with Sequestrene NAFE, a chelated iron compound marketed by the Geigy Chemical Corporation. Both speakers showed kodachrome slides of before and after treatment of a number of pin oaks in Indianapolis, Indiana and Columbus, Ohio. The material used at the rate of 1 pound for each 4 inches of trunk diameter, applied to the root area in solution by a sprayer and soil spear was more effective and safer than application as a spray. It is expected that a single soil treatment will be effective for several years.

Meszaros reported benefit to lawns in some localities from application of ¾ of a pound of chelated iron to 100 sq. ft.

William C. Hall, Arboreal Associates, Harriman, New York, in speaking on *Public Relations* emphasized the importance of good citizenship and taking an active part in all worthwhile civic projects. It is by such activities and by helping others that one builds good public relations which help in a business way. Specific mention was made of the help of one's trade association in promoting public relations. The use of the Association emblem on letterheads, advertising, and decals of the emblem on trucks are all good publicity for both the Association and the member.

The *Use of Soil Conditioners* may be a big help in starting a new lawn, especially on heavy clay soil, according to F. H. Brushmiller, Landscape Contractor, Ingram, Pennsylvania. The material must be thoroughly mixed with the soil, surface applications being of no value. Soil conditioners were not advocated to replace peat moss and top soil in lawn building, but the conditioners are additional helps under some difficult situations.

John Woodruff, Oscar F. Warner, Landscape Forester, Waterbury, Connecticut, used a series of kodachrome slides to illustrate *Tree Take-Down Equipment.* A truck with a super-structure type of tree mover is used. There are compartments on the truck for all tools needed in take-down operations. The truck so equipped is used for loading logs, hauling brush, loading stumps and the whole tree removal operation. By the use of such equipment and men trained in its use, the cost of removals has been reduced considerably.

*Chemical Control of Brush* was the subject of an interesting discussion presented by Fred Ashbaugh, West Penn Power Company, Pittsburgh. Mr. Ashbaugh was one of the early investigators of chemical brush control. He said that last year about 6,500 acres of brush on rights-of-way were sprayed. He expects this method of control to increase in the future and he expects refinements in both methods and materials. Probably will have more selective killers. Chemical control costs 30-40% as much as mechanical control.

In answer to a question it was stated that CMU can be washed out of spray equipment. This material is extremely toxic to plants. It is a soil sterilizing agent of which 4 parts per million parts of water will kill some trees. Mr. Ashbaugh considers it unsafe to use for killing grass and weeds in walks, drive-

ways, etc., where valauble trees and shrubs are nearby. The material will wash and may kill plants located some distance from the place of application.

Paul R. Walgren, Jr., Walgren Tree Experts, Hamden, Connecticut, and Hackett C. Wilson, Wilson Tree Company, Shelby, North Carolina, spoke of *Tree Lessons Learned from Hurricanes Carol and Hazel.* A Dodge Power Wagon with 300 feet of cable is a valuable piece of equipment in hurricane work. Trees which are pulled back in place should be guyed immediately. Another blow may follow, as was the case in New England last fall when Edna came a few days after Carol. Get in cables and rod where needed immediately because the split trees will be damaged further by medium winds. Around New Haven, Connecticut, 40% of the trees blown over were willows. If you are in a hurricane area keep a good supply of materials on hand. When a storm strikes materials soon run low. $200 in extra materials will be a welcome investment in case of a hurricane. If you work for utility companies have a plan of action worked out so that it can be put into effect immediately after a storm. With no plan, confusion is everywhere after a hurricane.

*Business Meeting*

*Publicity.*—At the business meeting Monday afternoon H. P. Quadland who is doing public relations and publicity work for the Association explained what is in the mill for this spring. Another issue of National Tree News will be sent to 5,000 newspaper editors. Another feature story has been prepared and is being distributed to editors. Plans are in the making for at least one story in a magazine of national scope. The February issue of Kiplinger's magazine "Changing Times" has a two-page article on tree experts.


PRATT'S Sprays

Pratt's Sprays are formulated for use in mist or hydraulic sprayers to give the greatest degree of safety and effectiveness for shade trees and evergreens.

**PRATT'S SUMMER SPRA-OIL**—A miscible 97% white oil type summer oil. For use in the control of red spider, scale crawlers, white fly and as an effective ovicide, also used as a dormant spray for evergreens where a lighter oil is desired.

**D-X INSECT SPRAY**—One of the most effective non-poisonous sprays for sucking and chewing insects of shade trees as well as fruit trees. Contains rotenone, pyrethrum and piperonyl cyclonene for great effectiveness and safety.

**PRATT'S DDT SPRAYS**—Pratt's DDT sprays are especially formulated for the safety and effectiveness demanded in shade tree work. Pratt's Emulsifiable 25% DDT —Pratt's S-30% DDT and Pratt's dry wettable 50% DDT.

**SCALECIDE**—The oldest and best known dormant oil spray. Contains 96% highly refined, highly paraffinic dewaxed oil. Use Scalecide for the control of scale, aphis, red mite, and over-wintering insects on shade trees, fruit trees, evergreens and ornamentals.

***Order Pratt's Sprays from your distributor. Bulletins available — Pratt's Oil Sprays, Pratt's Sprays for Mist Blowers and Hydraulic Spraying.***

★

**B. G. PRATT CO.**

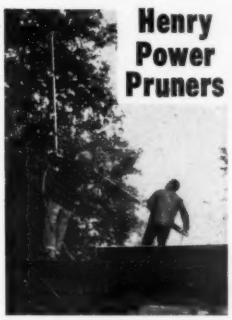
*INSECTICIDES*

**204 Twenty-first Ave., Paterson, N. J.**



**Tree Pruning Cost Cut ½**

**with Investment of about $980**



Actual savings run up to 60% in line clearance and tree trimming with HENRY power - pruning. We sell pruners or complete equipment. Write for catalog.

**PNEUMATIC PRUNER DIV.**
**The Henry Co.**
**2317T Whitney Ave.**
**Hamden, Conn.**



**Makes LAWNS sit up and sing!**

**One-shot treatment kills the soil pests that destroy grass roots**

Stop the ravages of white grubs, ants and chinchbugs . . . let your lawn become the lush green carpet you dream of! Dieldrin rids it of these and other ruinous pests.

Easy to use! Sprinkle dieldrin granules on lawn and soak into soil with hose or sprinkler. That's all!

It lasts! One treatment lasts for years in most areas. Dieldrin is distributed by hardware and garden supply stores under various brand names. Just ask for dieldrin.

**dieldrin** (say deel-drin)

**SHELL CHEMICAL CORPORATION**

## New Spray-Soaker

The Supplex Corporation, Garwood, N. J., has just released a soaker that operates on a different principle for deep soaking of shrubbery, flower and vegetable garden rows, trees, etc.

The spray-soaker is a single tube with opening only in the upper half. Two fins on the bottom stabilize the tube to keep it from turning so that it sprays upward only, eliminating washouts.

The sprays also provide wider distribution of water over the area to be soaked so there is faster absorption of the water into the soil with better penetration throughout the root system. The manufacturer states that the spray width can be controlled at the faucet (from a few feet) down to a few inches and still deliver water uniformly along the entire length. The spray-soaker operates with as little as five pounds of water pressure.

The Supplex Spray-Soaker is made of virgin vinyl and will not rot or mildew.

## Shift Sewer For Trees

MUSKEGON, Feb. 11—The city commission has altered an $80,000 storm sewer project in a residential district to avoid destroying a row of large trees standing along the right of way. The city agreed to shift the sewer line slightly from its original path after a property owners' petition termed the trees "a natural asset."


**THE FITCHBURG CHIPPER**

with its patented spring tension feed, assures smoother feeding, not just of smaller brush, but larger as well. It avoids serious damage to the machine if metals or other hard substances happen to get in. They are built to stay out of the repair shop.

*"We should like to let you use one for a day or so to see how well they perform."*

6" with 42 H.P. Continental
12" with 62 H.P. Continental
*It's H.P. that counts*

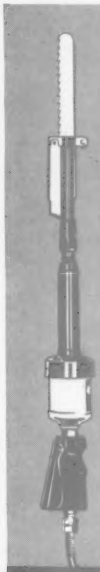
*Karl Kuemmerling, Inc.*

**P. O. Box 248** **Canton, Ohio**

**WANTED**

Man to run Tree Expert Division of well established, rapidly expanding corporation in the New York area. Must have field experience and ability to take over executive position. Excellent opportunity for lifetime position with many benefits plus a percentage of the profits.

**Write Fully to TREES MAGAZINE P.O. Box 5B, OLMSTED FALLS, OHIO**



**go modern!**
*with*
**MILLER-ROBINSON**
**POWER OPERATED LIMB LOPPERS AND TREE SAWS**
**CUT TRIMMING COSTS 30-50%**
*Select the RIGHT Unit from a Full Line of Fourteen Time-Tested, Field-Proven Models*

**DO THE JOB QUICKLY, EASILY, ECONOMICALLY**

**Every Cut Sharp and Clean**
**No Ragged, Split or Chewed Limbs or Branches**
**Made to Stand Hard Work and Abuse**
**Complete Line of Compressors and Accessories Available**
**Insulated and Non-Insulated Models**
*Field Demonstrations at Your Convenience*

**Write for Complete Information and Name of Nearest Dealer!**

**MILLER-ROBINSON CO.**
7007 Avalon Boulevard
Los Angeles 3, California

*Pioneer Designers and Builders of Air Powered Trimming and Pruning Equipment*

**The Jeffrey Tree Mover**
**—MODEL 6—**

Facilitates Moving 5" to 8" Trees

Lifts and Carries by Root Ball

Handled With Light Equipment

*Write for Particulars*

**Jeffrey Manufacturing Co.**
**FALMOUTH, KENTUCKY**

# BIG STUFF
## IS EASY STUFF

True, it weighs in at only 22 pounds. But when it comes to production, a Homelite Model 17 will outcut many chain saws in the heavy weight class. It brings down big, hardwood trees . . . 4 feet or more in diameter . . . quickly and easily. It cuts 18 inch trees in as little as 18 seconds. And, *of great importance,* it stands up under the grind.

## WITH A HOMELITE MODEL 17

*You can be sure of this!* Every time you buy a Homelite Chain Saw, you get a real production saw. It might cost a bit more to buy, but professional woodcutters have found that this initial cost of premium quality is soon written off by *increased production* and *decreased maintenance.* Built and backed by engineers who have specialized in lightweight gasoline-engine-driven units for nearly half a century, a Homelite gives you everything you need in a saw . . . more dependability, easier handling on every type of cut, and more power per pound than any other saw. Write for free demonstration.

PERFORMANCE · DEPENDABILITY · SERVICE

**HOMELITE CORPORATION**

803 RIVERDALE AVENUE • PORT CHESTER, N. Y.

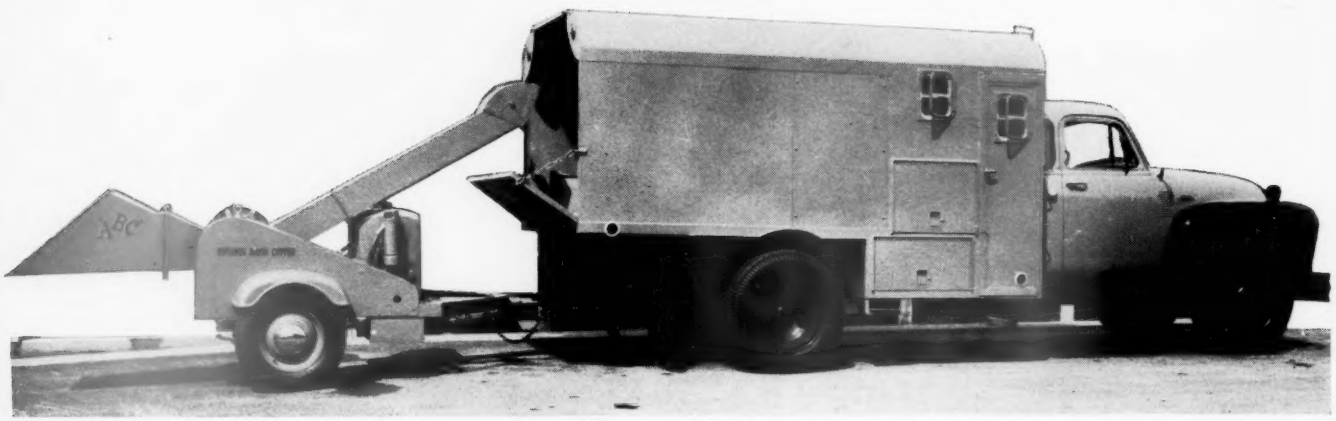
*Canadian Distributors:*
Terry Machinery Co., Ltd., Toronto, Montreal, Vancouver, Ottawa.

RETURN POSTAGE GUARANTEED
Trees Magazine, 7621 Lewis Rd.
Olmsted Falls, Ohio

Postmaster: If addressee has moved and new address is known, notify sender on Form 3547, postage for which is guaranteed.

Sec. 34.66 P.L.&R.
U. S. POSTAGE
**PAID**
Olmsted Falls, Ohio
Permit No. 12

# IDEAL COMBINATION



**Here are three specialized pieces of equipment which have been designed for, and severely field-tested by, real treemen.**

**They are doing an outstanding job in all parts of America in reducing costs, speeding up work and improving public relations. Each of the units has been engineered for long, rugged life with low maintenance costs.**

**It will pay you to get complete details. Write to 505 York Rd., Jenkintown, Penna.**

The ASPLUNDH TRUCK BODY is ideal for all types of construction and maintenance work where the safe and comfortable transportation of personnel is a factor. There's 285 cubic feet of space for chips or other material, and four roomy tool compartments, a ladder-rack and other features.

The ASPLUNDH CHIPPER, now available in three sizes, for mounting on trucks, skids or tractors, or as the complete self-contained trailer shown with the truck, above, is easy and economical to operate and to maintain.

The ASPLUNDH BRUSH SAW, below, is superior in performance, lighter in weight and lower in price. Its 30° angle head makes a clean, flush, ground-level cut.

# ASPLUNDH CHIPPER COMPANY

Printed in U.S.A.